The Politics and Economics of Financial Regulation: Understanding the Diversity of Banking and Hedge Fund Regulatory Regimes

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1. Introduction

Financial systems and the regulatory regimes that define them are crucial institutional elements of modern capitalist economies. Furthermore, major economic disruptions have also typically been associated with some manner of financial tumult – a point glaringly brought to the fore in the wake of the Global Financial Crisis (GFC). The ensuing debate concerning how financial regulation could have failed so badly, and the varying degrees to which this reflects differentiated national regulatory regimes, remains a topic of great interest. Neo-classical economic reasoning suggests that we may have expected to see a convergence over time to the most efficient financial model. Yet, the diversity that exists across developed economies, and the inertia that financial regulatory regimes often exhibit, presents an interesting focus for exploratory interdisciplinary comparative research. For example, why do governments in the United Kingdom traditionally favour a laissez-faire approach to intervention in financial markets, while German governments tend to limit the use of complex and diverse market instruments? Or, why has the United States historically adopted a minimalist approach to the regulation of hedge funds, while hedge funds were not permitted in much of continental Europe until the mid-2000s? The influence of organised economic interests, national electoral institutions, complementarities with corporate governance regimes, legal origins, or the legitimising power of social norms and policy paradigms, may provide an answer. Thus, this paper sets out to shed light on these and other factors that may assist in understanding the diversity of national financial regulatory regimes.

By way of introduction, the remainder of Chapter 1 puts the financial system and its associated regulatory institutions in their broader economic context. In characterising financial regulatory regimes, a distinction is made between those which support bank-based finance and those which support markets-based finance.

Chapter 2 outlines three prominent approaches to understanding economic regulation in general. The ‘private interest’ approach attempts to understand government regulation as a reflection of the interests of influential and powerful organised groups. The ‘institutional’ approach emphasises the effect of institutions and different modes of coordination, and sees law and regulation as codified representations of individuals’ rule-like behaviour. Furthermore, this approach is used to explain how modes of coordination in different economic spheres can be complementary to each other, thereby producing a limited number of viable national institutional constellations, often referred to as ‘varieties of capitalism’. The ‘constructivist’ approach argues that the behaviour of economic agents must be understood with reference to their subjective ideas and beliefs, as well as the way in which social processes construct incentives and informal norms like legitimacy.

Chapter 3 then establishes a methodological framework that as parsimoniously as possible combines the most important elements of these three approaches, in order to examine the determinants of different financial regulatory regimes. This framework is broadly in the tradition of Douglass North and the ‘new institutional economists’. Specifically, it is a combination of the comparative institutional analytical approaches of Masahiko Aoki and

Bruno Amable. It take Aoki's 'institutions as equilibrium summary representations' concept and 'synchronic-diachronic' distinction, then incorporates Amable's multi-tiered analysis of an institutional game-theoretic environment and its associated meta-institutional environment. Broadly speaking, institutional complementarities, à la the 'varieties of capitalism' literature, represent the static constraints on the choice set of financial regulatory institutions, restricting them to those that are consistent with other key coordination mechanisms in the economy. These represent equilibrium institutions arising out of a meta-institutional environment, which is influenced by two key elements: (i) the underlying political economy (private interests, collective action), and (ii) socialisation processes affecting informal norms (constructivist theory).

Chapter 4 considers the various institutional complementarities that may exist between financial regulatory regimes and other economic spheres. In particular, the nexus that links the institutional structure of corporate governance and corporate finance, is examined in detail. In doing so, a model of corporate finance based on Albert O. Hirschman's theory of 'Exit, Voice and Loyalty' is developed, which provides a novel perspective on the adoption of either 'outsider' or 'insider' corporate governance models in response to different financial regulatory regimes.

Chapter 5 discusses the meta-institutional political economic processes that may affect the adoption of particular financial regulations at the institutional level. Specific cases of organised interests are examined in terms of the diachronic process by which their ability to acquire resources by overcoming free-rider dilemmas, may produce new equilibria within the financial regulatory structure. This provides particular new insights regarding the regulation of hedge funds and the 'shadow banking' industry.

Chapter 6 examines how the financial regulatory institutional structure is mediated and refracted by informal norms and social constructs, which impose on the material context of action, and exist in the meta-institutional environment. Norms that establish the legitimacy of certain financial behaviours or relationships are discussed regarding their relative support for different regulatory architectures. In addition, the influences of socially constructed policy paradigms that structure discourse and define agendas are considered. In particular, changes in the dominant policy paradigm regarding hedge funds pre- and post-Global Financial Crisis are examined.

Chapter 7 outlines the main conclusions of the paper, and briefly discusses avenues for further research.

1.1 The Financial System in Modern Capitalism

1.1.1 The Role and Function of Finance

First and foremost, financial systems facilitate the allocation of capital across the almost infinite possible uses in a particular economic environment and can be spatial, temporal or functional. Naturally, this function of financial systems renders them indispensable to a coherent conception of capitalism, where the efficiency of the allocation of resources forms one of the cornerstones of its proposed normative justification. Secondly, the financial system facilitates transactions via the payments system. Consumers and businesses require the ability to make deposits with financial firms which are readily able to be withdrawn, in order to conduct their regular exchange activities. This type of deposit is not for the purpose of saving and importantly, should be analytically separated from the role other types of deposits play in the capital allocation mechanism. Thirdly, financial firms provide insurance products and services. By creating certain kinds of financial securities (including to an extent at-call deposits), financial firms are able to provide individuals and firms with insurance against undesirable outcomes, reflecting physical, financial or temporal uncertainty. Often scholars will present this insurance function as allowing consumption-smoothing in the face of random external shocks (Cochrane, 1991); but in reality, shocks (especially those of a financial nature) are rarely random, and as the Global Financial Crisis (GFC) of 2007-2008 showed, can often be insufficiently minor in a systemic sense.[1] In theory, the insurance function of financial firms is made possible because of the ability of firms to diversify across a large number of insurance holders, such that any individual misfortune does not significantly affect the overall viability of the insurance portfolio. However, this requires the assumption that individual losses will not be correlated, and in reality for many financial instruments, like the newly-conceived credit default swaps, default probabilities tend to have common causes.

So although the neo-classical financial-economic model, which has at its core conceptual notions such as the 'efficient market hypothesis' (Malkiel & Fama, 1970), the 'no-arbitrage principle' (Ross, 1976) and so-called 'risk-neutral pricing' (Cox & Ross, 1976), has been increasingly challenged, it continues to form a significant part of the theoretical basis for the laissez-faire approach to financial regulation. The clear under-regulation, or at least miss-regulation of financial institutions which occurred during the lead-up to the GFC, may in some way be a result of a continued misapplication of this largely out-dated underlying theory of banking and finance. One alternative, increasingly acknowledged model of capitalist finance posits that when economies experience extended periods of prosperity, the national and international financial edifice becomes increasingly fragile. Introduced by Minsky (1992) and termed the Financial Instability Hypothesis, the theory describes how during an expansionary phase, non-financial businesses are rewarded for high indebtedness, encouraging others to follow suit. Financial institutions are also eager to expand their balance sheets, and this optimistic economic environment engenders a willingness on the part of financiers to invest in risker financial assets. Ultimately however, this comes to an end, and firms, households and governments must undergo a

[1] For comprehensive reviews of the global financial crisis of 2007-2008, see Stiglitz (2010) or Davies (2010).

painful period of de-leveraging. In such an environment, one might expect the most appropriate form of financial regulation to be vastly different to that which is recommended by traditional finance. One example is the use of counter-cyclical 'macro-prudential' regulation, which is used sporadically across national jurisdictions, but does not engender much support from traditional financial theorists. This type of regulation is ultimately aimed at dampening fluctuations in the financial cycle, and uses a range of discretionary instruments in order to accomplish this outcome (for details, see Borio, 2003; Galati & Moessner, 2012). The most commonplace discretionary macro-prudential tools are variable loan-to-valuation ratios for lending, as well as flexible minimum capital and liquidity requirements. It is therefore not surprising to see that following the GFC, both national governments and international bodies have engaged in a close examination of the merits of expanding the use of such policies.

1.1.2 Shadow Banking and Markets-based Intermediation

Within the financial sector and in addition to traditional banks, other types of firms have begun to emerge over the past few decades, especially in the US and UK. These corporations perform the same kind of capital intermediation functions involving maturity and risk transformation that traditional banks have performed for centuries, but have a much more market-orientated banking model. Often referred to as 'shadow banking', these private investment firms include hedge funds, structured investment vehicles and money market funds. The assets of hedge funds in the US alone increased from around US$150 billion in the early 1990s to around US$2 trillion a decade later (Lhabitant, 2006). In fact, some estimates suggest that prior to the GFC, assets of the global shadow banking industry represented around US$60 trillion (Financial Stability Board, 2011). The nature of the intermediation performed by these firms is different to that of traditional banks in two important ways. Firstly, their assets are generally held, not as loans to firms or households, but as financial securities like corporate bonds or securitised mortgages, which are traded on financial markets. Secondly, unlike traditional banks, they are generally not funded by savings deposits, but instead borrow money on financial markets by issuing short-term debt securities.

1.2 The Regulation of Finance: Characterising National Regimes

At its most basic level, understanding economic regulation would start with a rationale for state intervention at a very primitive level. For example, Hobbes and those in his contractarian tradition see the state as external and internal protector whose laws and regulations represent consensual restraints on individuals, mutually agreed to on the basis of self-preservation. Often in economics, a similarly benign view of the state forms the most basic normative rationale for intervention in private economic matters. With the help of the oft-employed analytical device of the benevolent dictator, state intervention is seen as a means of solving a range of market failures and inefficiencies. For example, governments can attempt to ameliorate the inefficiencies associated with natural monopolies via price regulation or franchising (Viscusi, Vernon & Harrington, 1996).

Likewise, governments may impose taxes, regulation, or systems of property rights or liability, in order to take account of the social costs (or benefits) of particular activities, referred to as externalities, that are not incorporated into agents' maximisation calculations and thus relative prices. Problems of information are also seen as suitable objects for government attention. Common to all these market-orientated theories of state intervention is the idea that the aim of policy-makers is to maximise social welfare or to target some notion of the public interest, and that they have the means and the prowess to do so.

In many ways, the general public interest approach to state intervention outlined above readily lends itself to the analysis of financial systems and financial markets. However, there are also specific issues which are idiosyncratic to the nature of financial markets, financial firms, and the production and consumption of financial goods and services. According to Herring & Santomero (1999), there exist four broad rationales for financial regulation that purport to be in the public interest; namely, protecting consumers, enhancing efficiency, safeguarding against systemic crises, and achieving a range of other social objectives via the financial system. The first two fall broadly within the same intervention agenda as other markets and sectors in general; while the second two are areas that are largely specific to the financial system.

The consumer protection rationale for regulation stems from the desire to avoid unjustifiably high consumer prices, which arise from limited competition, and monopolies at the extreme. This is no different in the financial sector and measures, such as anti-trust enforcement, are regularly employed by governments. Another consumer protection rationale stems from the idea that poorly-informed consumers can be vulnerable to incompetence, negligence or fraud on the part of financial firms. Chartering and stringent licencing function are often used to screen out potentially imprudent, incompetent or dishonest bank owners and managers. This rationale is popular amongst policy-makers for its seemingly clear public interest motive and is used to promote a range of regulatory measures. For example, disclosure requirements, whereby firms must release firm-specific financial information to the public, are designed to treat problems of asymmetric information. In this case, asymmetric information may arise in a principal-agent framework because consumers as depositors/investors (principals) do not have complete information about the activities of financial firms (agents). Deposit insurance schemes are also often promoted citing consumer protection as their justification. In this case, it is assumed that many depositors would find it either too costly or too difficult to monitor the behaviour of their bank, so deposit insurance protects them from inadvertently making poor financial decisions. It may be that, in the absence of deposit insurance schemes, many savers and potential lenders would prefer to hold cash, viewing the interest received from deposits insufficient compensation for the uncertainty surrounding their investment or to compensate for the costs associated with discerning the good banks from the bad. In this situation a sub-optimal supply of capital can arise.

The enhancement of efficiency provides a further motive for financial regulation, which is also shared by other sectors, and the type of instruments used, like providing market

infrastructure (clearing and settlement mechanisms, etc.), are not dissimilar to those applied elsewhere. In this context, efficiency means that financial markets provide more accurate price signals and as such, will more effectively deploy, transfer and allocate capital across time and under conditions of uncertainty (Gurley & Shaw, 1967). Accurate and abundant information regarding financial products and services are important drivers of efficient price discovery. Thus, disclosure standards imposed on financial institutions can serve not only a consumer protection rationale, but also an efficiency one.

Thirdly, safeguarding the economy from systemic financial crises is an increasingly prominent rationale provided for financial regulation, and has become even more acute after the global financial crisis of 2007-2008. A systemic crisis refers to, "*the propagation of an agent's economic distress to other agents linked to that agent through financial transactions*" (Rochet & Tirole, 1996, pp.733), also known as financial contagion, this can significantly disrupt the payments mechanism and capacity of the financial system to allocate capital. This is one of the unique features of the financial system that distinguishes it from other sectors, requiring a special approach to regulation (Davis, 1992). If failures were isolated to individual firms, there would not be as much of a problem; however, in financial markets more so than for non-financial firms, it is argued that there exists a complex network of inter-firm financial contracts for assets that can rapidly change in value. Therefore, even if the managers and owners of banks have appropriate incentives internally to respond to their own potential losses should their bank fail, there is no reason they should have adequate incentives to take account of the costs for the economy and society in general of their behaviour. There are often significant incentives for banks to engage in risky activities – increasing profitability at the expense of safety regarding both solvency and liquidity. So the rationale for a large proportion of financial regulation is to counteract the incentives for excessive risk taking. Leverage and capital requirements are classic examples of ways policy makers attempt to limit risk-taking by banks. While not perhaps regulation in the strict sense, having central banks act as 'lenders of last resort' in times of crisis and allowing financial institutions to borrow in the short term using long-term assets as collateral rather than selling them as fire-sale prices, thus getting around the maturity transformation problem, is used as a means of propping up illiquid institutions. During the GFC and throughout the post-GFC period, this has been used extensively throughout the world, and is largely justified by policy-makers on systemic stability grounds.

Finally, financial regulation can be used to pursue a range of social or political objectives deemed to be in the public interest. For example, support for the housing sector and for lending to ordinary households is an intervention in the financial sector that is popular among politicians and voters alike. In addition, many countries provide subsidised financing for exports, seen as a way to enhance growth. Many countries also use targeted financing in industry or regional policy, focussing on domestic areas deemed to be important for some reason or another.

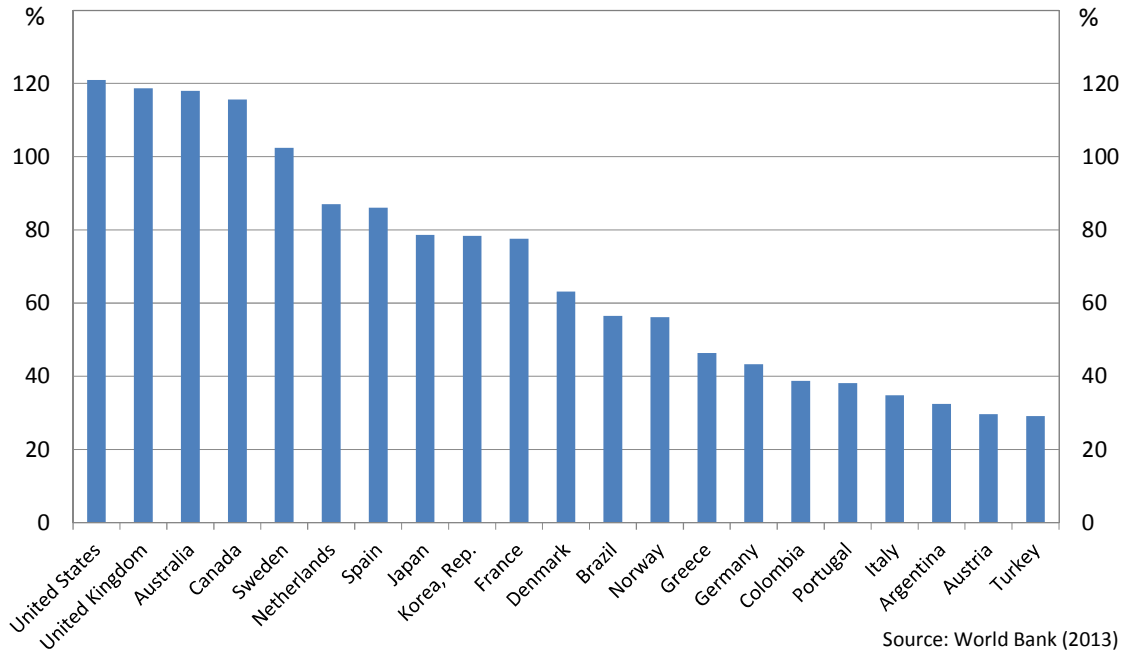
This multi-faceted nature of the function and purpose of financial regulation makes the identification of particular styles of regime and the characterisation of regulation an

important task. John Zysman's (1983) book '*Governments, markets, and growth: financial systems and the politics of industrial change'* is a pioneering examination of the different characters of national financial regimes. At the time, Zysman identified three main varieties of finance capitalism; namely 'bank credit-based', 'government credit-based', and 'capital market-based'. At the core of Zysman's differentiation is the way that financial regimes act to influence the conduct of industrial activity. While government-led credit systems have largely been abandoned in developed economies over subsequent years, the distinction between capital-market-based financial systems and bank-based financial systems continues to be used by researchers in one form or another.[2] Broadly speaking, in bank-based systems, a larger proportion of financial assets and liabilities consists of bank deposits and direct loans; while in market-based systems, securities that are tradeable in financial markets are more prominently used as a means of borrowing and lending (Vitols, 2001). The archetypal bank-based financial systems are Germany and Japan, where banks have traditionally been a driving force in the mobilisation of savings, the allocation of capital and the overseeing of investment decisions by corporations (Demirgüç-Kunt & Levine, 1999). On the other hand, market-based financial systems tend to be observed in the Anglo-sphere nations, such as the United Kingdom and the United States, where firms borrow directly from securities markets, and decentralised processes like price signals drive the allocation mechanism (ibid).

These different styles of finance can be seen in a number of characteristics of these national systems. For example, as of 2011, Germany's Deutsche Börse traded around 670 listed companies, compared with around 2000 on the London Stock Exchange (World Bank, 2013). In France there are around 900 listed companies, compared with almost 4,000 in Canada (ibid). Furthermore, in Anglo-sphere countries like The United States, The United Kingdom, Canada and Australia, the market capitalisation of the stock market averages around 120 per cent of GDP, whereas it averages around 45 per cent in Germany, and around 75 per cent in France and Japan (FIGURE 1).

[2] For examples across a range of fields, see Levine (2000), Lütz (2000), Rajan & Zingales (2003), Chakraborty & Ray (2006).

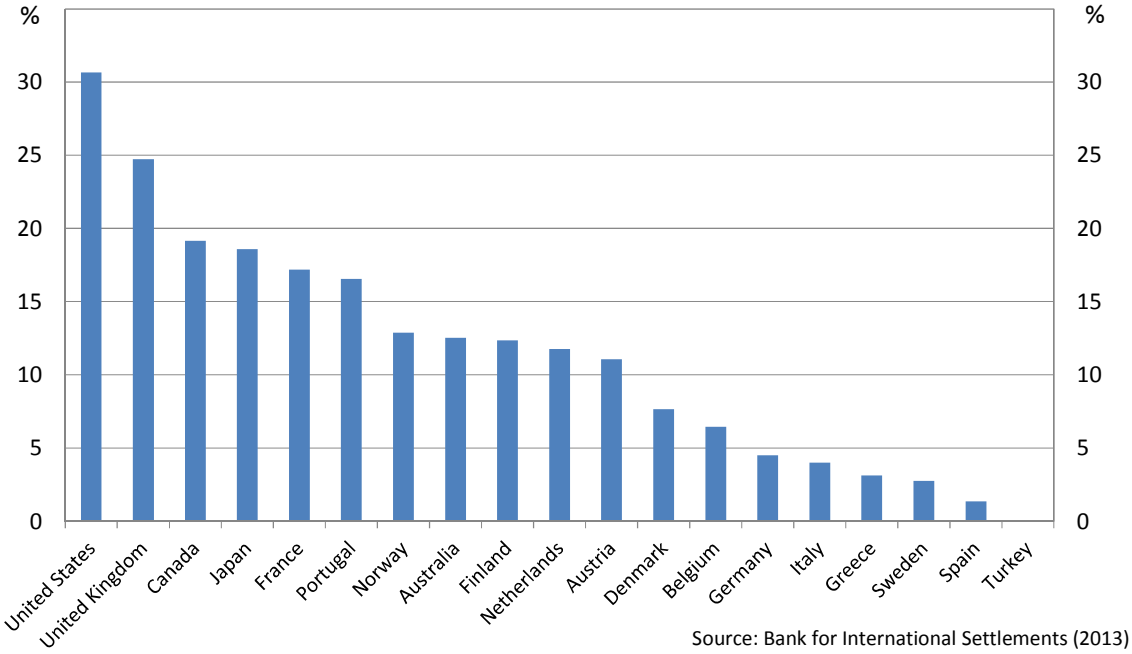
FIGURE 1: Stock Market Capitalisation: % GDP
10-year average to 2011



Source: World Bank (2013)

A similar pattern can be seen in the relative importance of corporate bond markets across different nations. Again, countries like the US, and UK have relatively large corporate debt markets, whereby companies borrow directly from investors. On the other hand, in economies like Austria, Germany and Denmark, market-based debt is a comparatively minor source of funding for corporations.

FIGURE 2: Corporate Bonds outstanding: % GDP
10-year average to 2011



Source: Bank for International Settlements (2013)

Furthermore, the relative importance of the market for corporate control shows similar divergence between economies, with the number of corporate mergers and acquisitions

recorded in the UK averaging around 4000 per year over the past decade, compared with around 2000 in Germany and France (Institute of Mergers, Acquisitions and Alliances, 2013). Meanwhile, in the US there are over 10,000 reported per year (ibid).

This bank- versus market-based distinction is also commonly applied to financial regulatory regimes, and is used to refer to systems that foster and support either of the different modes of finance. For example, Rosenbluth and Schaap (2003) argue that there is evidence to suggest that banking systems of the industrialised world cluster into roughly two types. These two types reflect the way in which policymakers attempt to protect against systemic financial crises. In the first case, regulation that limits competition in the banking sector like entry restrictions, and limits placed on financial market activities, acts to boost the profitability of banks, and at the same time reduces risk for depositors because profitability disinclines banks to take undue risks. This means of regulation is often referred to as 'profit padding', and is associated with bank-based financial systems (Sousa, 2007). For example, the German bank-based regulatory model incorporates a tax system that tends to dis-incentivise the utilisation of liquid financial securities (Mettenheim & Butzbach, 2012). Similarly, the type of regulatory regimes which support bank-based financial systems tend to heavily restrict financial transactions which are made outside of formal exchanges or without centralised clearing houses. The second type of observed cluster of national financial regulatory regimes aims to promote competition and greater risk-taking in the financial system, but imposes measures like disclosure standards and capital requirements on financial institutions to promote system stability (Rosenbluth & Schaap, 2003). This is referred to as 'prudential' regulation, and is associated with markets-based systems. These systems tend to be characterised by regulatory instruments such as large supervisory agencies, through which the behaviour of financial institutions is monitored rather than controlled. Institutions tend to be coaxed rather than compelled by these regulatory bodies such as the Securities and Exchange Commission in the case of the US (Black & Jacobzone, 2009). Thus, under these regulatory regimes, institutions tend to be more free to conduct financial transactions and enter into financial contracts outside of centralised exchanges, which in the case of shadow banking permits to varying extents the creation of off-balance sheet financial exposures. So in line with the common distinction made between bank- and market-based systems, throughout this paper I will generally use a similar dichotomy; namely, between bank-orientated and market-orientated financial regulatory regimes.

2. Theories of Economic Regulation

2.1 The Private Interest Approach

Even though intuitively appealing, using the public interest approach to explain government intervention has been questioned on both theoretical and empirical grounds. The challengers ultimately question both the assumptions of political omniscience and political benevolence in economic matters. Therefore, in place of public interest theories of positive economics, there have emerged what are broadly called 'private interest' theories of economic policy-making.[3] Pioneered by those such as Stigler (1971), Pelzman (1976) and Becker (1983), this approach argues that in attempting to address what are viewed as market failures, regulation may not solely reflect legislators' desire to maximise the general welfare, but instead be driven by the interests of influential groups within a society. Stigler (1971) observed that regulation of industries often, in reality reflects the interests of exactly that regulated group – in other words policy is 'captured'. For example, the interests of producers tend to be more influential in shaping regulatory legislation than consumers' interests at large. For their notion of interest groups, these authors also rely heavily on Mancur Olson's seminal work *The Logic of Collective Action: Public Goods and the Theory of Groups* (1965). Olson saw the commonality of the goals of an interest group's members as making the achievement of that goal a public good for that group, but also giving rise to incentives to 'free-ride'. From this observation, Olson draws two conclusions. First, that the smaller the number of potential members, the easier it is to effectively organise an interest group. Secondly, interest groups that successfully represent a large number of individuals require selective incentives to be in place to counteract the free-rider problem. As a corollary, regulated industries that are effective at either restricting benefits or sanctioning non-contributors are more likely to exert their power to capture regulation.

Beginning with studies of national trade policy, there also developed mounting empirical evidence that private interest groups were able to influence regulatory policy in their own favour. For example, a study by Grossman and Helpman (1994) suggests that that international trade policies can be viewed as objects 'for sale', with the policymaker as seller and special interest groups as buyers – a hypothesis supported by Baldwin (1989) and Goldberg & Maggi (1999), who find that the cross-sectional pattern of US trade policy is consistent with trade protection being higher in industries represented by organised interests.[4]

In the financial sector, the influence of interest groups has also called into question the notion of public interest policy-making. In an influential empirical study, Barth, Caprio and Levine (2006) collected data from around 150 countries regarding financial regulatory practices, and statistically tested whether the range of measures applied by regulators actually matter when it comes to preventing financial market failures. Importantly, they

[3] Also called 'public choice', see Tullock, Seldon and Brady (2002)

[4] Other examples include Lopez and Pagoulatos (1994) who find that trade protection is correlated with PAC contributions in the US; Trefler (1993) who finds that industry concentration affects political influence; Pelzman (1992) who finds a link between the strength of labour unions and trade protections.

find that common features of financial regulatory regimes around the world, like government-funded deposit insurance, do not appear to reduce the risk of countries experiencing financial crises, and in fact, in some cases, it appears they can increase their incidence. Another study by Heinemann and Schüler (2003) also finds that the stringency of supervisory regimes does not have a significant statistical impact on the likelihood of systemic banking crises when looking at data for 66 countries.

2.2 The Institutional Approach

2.2.1 Institutional Economics

For the bulk of the private interest literature, it is either implicitly or explicitly assumed that the only salient type of institution one needs to consider is that of the market. Whether it be a focus on markets in the literal sense, or the use of analytical devices such as a marginal political calculus (Peltzman, 1976), the idea of the rational pursuit of self- interest in response to implicit prices as the only meaningful incentive-producing device are ubiquitous to the literature (Boettke, et al., 2005). However, markets and the use of marginal calculus and prices signals are just one type of coordinating mechanism at play in society. As Aoki (2001) describes, complete markets are rarely available in reality, so in their absence agents require alternative devices for informing choices. This causes the evolution of a range of different individual and collective decision-making, coordination or rule-establishing mechanisms that influence economic structures and the behaviour of individuals, groups and organisations. Such mechanisms like hierarchies and contracts, allow groups to overcome problems of adverse selection and moral hazard, re-enforce cooperation and reduce uncertainty, as well as reduce opportunistic behaviour (Amable, 2003). Importantly, this means that the particular institutional arrangements at play can sometimes be the decisive element in economic and political outcomes. As North (1990) suggests, it us useful to understand institutions as representing the 'rules-of-the-game' that structure economic behaviour. In this sense, a rule can be an instruction, a principle, a regulation, or any directive or guide for action Amable (2003). It is also important that, to qualify as an institution, most researchers assume that associated with a rule there must be some sort of sanction or reward. The extent to which an agent abides by a rule must imply some sort of external effect on their well-being. Ostrom states it simply as, *"payoffs will be assigned to individuals dependent on their actions,"* (Ostrom, 1990, p51).

When talking about institutions, it is also common to separate 'formal' and 'informal' rules (Aoki, 2001). Formal rules are consciously articulated and codified constraints or guidelines for behaviour and include political rules like constitutions, economic rules like property rights (the right to both use and dispose of an economic resource (Demsetz, 1967), or legal rules like contracts. In addition, some recognised authority must administer the sanctions associated with disobeying formal rules. Informal rules on the other hand, are not fully codified, and include social norms, moral codes, customs or conventions. Furthermore, informal rules do not typically involve formal sanctions, but instead rely on other types of social sanctions and rewards. These might include aspects like reputation, social status and self-esteem. In addition, informal rules are often followed, *"without any*

subjective formulation in thought of the 'rule'," (Weber, 1978, p.105). Since this paper seeks to understand regulation, and the extent to which institutions determine regulatory regimes, it may be tempting to focus solely on formal rules; however, formal and informal institutions are highly interrelated and connected (Sugden, 1986). Therefore it would be insufficient to focus on formal rules alone.

As an example, an oft-cited example of a decisive and influential structural institutional characteristic is a nation's electoral system, and how it can provide differing incentives for elected representatives seeking political support. As an extension of 'Duverger's Law' (Duverger & Wagoner, 1972), whereby proportional representation generates a multiparty system and plurality generates two-party political competition, Cox's (1990) makes the distinction between centripetal and centrifugal electoral systems. Centripetal systems are those which provide politicians with the incentive to pursue policies more in line with the preferences of the median voter (see Hotelling, 1929; Black, 1948; Downs, 1957). Centrifugal systems on the other hand, include proportional voting, and provide incentives for representatives to focus on the interests of smaller groups with intense preferences over certain policies. This arises because governments often rely on the formation of coalition governments, which involve policy log-rolls, whereby the collective action advantage of well-organised groups allows them to trade support for one another's favoured policy (Buchannan & Tullock, 1962). Researchers have found empirical evidence that suggests that the type of electoral system can have an influence on the policies one would expect to observe across a range of policy areas.[5]

Some authors also suggest that the institutional basis of a legal system can have discernible economic and political consequences. Hayek (1973) was a strong proponent of common law systems, as he argued that they promoted law-making that was consistent with society's abstract norms of behaviour. As proponents of 'Legal Origins Theory', La Porta, Lopez-de-Silanes & Shleifer (2008) argue that historical evidence suggests that civil law countries are more likely to pursue social objectives by implementing mandates and through government ownership, while common law countries prefer private contracting and litigation.

2.2.2 Institutional Comparative Capitalism

With one's attention focussed on institutions and their effect on both micro-organisation and macroeconomic outcomes, it is a logical step to then examine the range of institutional structures on a cross-country basis. This research agenda examining 'varieties of capitalism' looks at how alternative political, legal, cultural and social institutions influence economic behaviour and affect economic outcomes, within a system where

[5] For example, Persson & Tabellini (1999) find that proportional systems tend to be associated with higher levels of government expenditures; Roubini and Sachs (1989) find that there tend to be larger deficits in countries characterised by the presence of many political parties in ruling coalitions; Rogowski and Kayser (2002) find that majoritarian electoral systems lower national price levels in the mean OECD country by between 10 and 17 per cent.

markets are the predominant device relied on to allocate scarce resources (Boettke et al., 2005). For example, an early empirical study by Calmfors, Driffill, Honkapohja & Giavazzi (1988) explored the relationship between wage-setting institutions and economic performance. Contrary to the neo-classical view that real-wage levels would be lower the closer wage setting institutions are to competitive markets, the authors found that there is a non-monotonic relationship between centralisation of wage bargaining and wage levels. At high levels of decentralisation, real wages are low because single units are unable to exert pricing-power. However, at the other extreme, high degrees of centralisation can also produce wage moderation. This occurs because, with the right incentives, it allows social partners, in particular trade unions, to internalise the possible adverse effects of exorbitant wages growth in inflation, employment and productivity. Meanwhile in the intermediate case, where the parties can exert bargaining power, but do not have the correct incentives to care about broader economic interests, there is likely to be costly disruptions. As Olson (1982) describes, organised interests can be very harmful to a country's economic performance if the external costs of their choices are not sufficiently encompassing to be internalised.

This line of reasoning led authors like Hall & Soskice (2001) to attempt to differentiate developed economies according their institutional characteristics. More specifically, they argue that across modern capitalist systems there exist two very distinct constellations of complementary institutions. It is suggested that the presence or particular type of institution used in one sphere of coordination affects the effectiveness or efficiency of institutions in other areas, such that we would expect patterns of particular constellations to emerge. Importantly, the concept of 'institutional complementarity' is central to this understanding. They focus on five areas of institutional salience; namely industrial relations, education and vocational training, corporate governance, inter-firm relations, and intra-firm coordination. Following examination of the patterns across countries regarding these areas, they suggest that developed economies can be categorised broadly as representing one of two types of capitalism, either liberal market economies (LMEs) or coordinated market economies (CMEs). According to the theory, in LMEs firms coordinate with each other and with customers primarily through competitive markets characterised by formal contracting and 'arm's-length' relationships. In these systems, organised labour is typically weak and employment and social protections are low. As a result, labour markets are fluid, and workers are said to have an incentive to invest in transferable skills. CMEs on the other hand are said coordinate on a strategic basis, where institutions support the formation of credible commitments, like information-sharing, and deliberation. These systems are characterised by relatively strong labour movements and industry associations. Employment and social protections are generally high, and longer job tenure tends to lead to specific skills acquisition. In addition, the management of firms is conducted in the context of consensual relationships and inter-firm collaboration.

The core contentions of the "varieties of capitalism" perspective on comparative capitalism are empirically examined by Hall and Gingerich (2004). The authors devise indicators intended to gauge the character of coordination in different institutional spheres along a

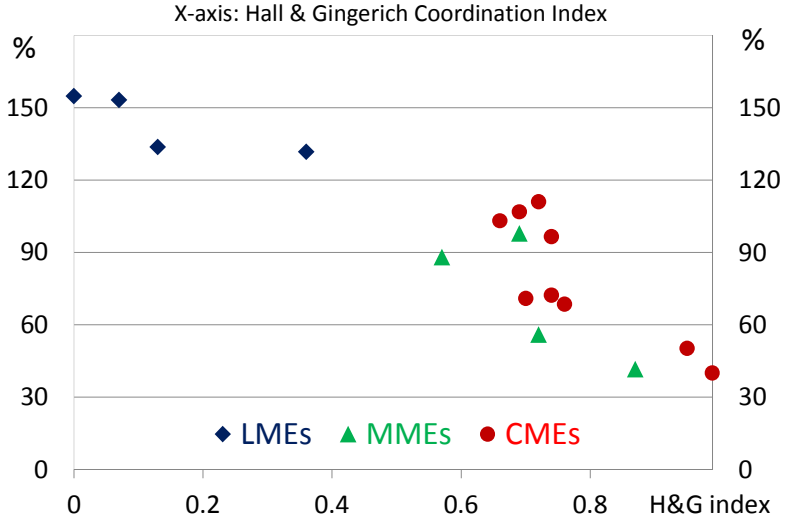
spectrum, running from market-based to strategic-based interaction. They perform a factor analysis on a set of institutional variables in order to isolate a single latent variable or 'principle component' representing the overall economy-wide character of coordination.[6] In a sample of 20 OECD countries and using data taken from between 1990 and 1995, the authors do indeed find such a factor. The authors also test whether there is an identifiable relationship between this underlying character of coordination index and the growth performance of countries. Mirroring the findings of Calmfors et al (1988) with respect to centralisation labour institutions, Hall and Gingerich (2004) also find a non-monotonic U-shaped relationship, indicating that more "pure" types of coordination, lying at either the market-based or strategic-based ends of the coordination spectrum, tend to outperform those economies with a mixture of both in terms of macroeconomic performance.

Similarly to other spheres of the political economy, the determinants of financial regulatory regimes are also likely to be to a large extent related to the institutions that prevail in various spheres of the economy. Superficially and anecdotally, the distinction made in the Varieties of Capitalism literature (Hall & Soskice, 2001) between liberal market economies (LME) and coordinated market economies (CME) also appears somewhat apt when looking at the character of coordination and regulatory institutions in the financial sphere. In a stylised way, in the LME Anglo-sphere countries there seems to be a tendency towards dispersed corporate ownership, information disclosure and a fluid market for corporate control (Davis, 2011). This corresponds broadly with the market-based system of finance described in Section 1.2. Conversely, countries classified as CMEs are often characterised by concentrated corporate ownership structures, limited public trading of stock and heavy reliance on bank-loan finance, and therefore tend to resemble the bank-based type of financial system. Using a measure of the relative importance of market-based finance, calculated as the total size of stock and bond markets, FIGURE 3 suggests that economies typically identified in the 'Varieties of Capitalism' literature as LMEs tend to have a much heavier reliance on market-based finance; whereas those typically identified as CMEs tend to rely much less on this type of finance.

[6] The institutional variables used were Shareholder power; Dispersion of control; Size of stock market; Level of wage coordination; Labor turnover; Degree of wage coordination

FIGURE 3: Varieties of Corporate Finance

Y-axis: Size of stock and Bond market (%GDP)
X-axis: Hall & Gingerich Coordination Index



Source: Hall & Gingerich (2004), BIS (2013), World Bank (2013; Author's calculations

Furthermore, there also appears to be a significant negative correlation between the relative importance of market finance and the Hall & Gingerich (2004) index of the character of coordination.[7]

The Varieties of Capitalism approach has also begun to be applied to issues debates over current controversies regarding the GFC, the Euro Crisis and financial regulation, with the embattled process of establishing EU banking union being one recent example (See Hall (2012); Heyes, Lewis & Clark (2012)). For instance, the concerns of many member states of the EU over having centralised supervisory power over the smaller public, regional or cooperative banks, are likely to be the result of the key role in which these providers of finance play in the particular national mode of capitalism. In Germany there is particularly strong opposition to ceding supervisory control of its banking sector, which includes the politically influential "Landesbanken". This type of bank has close ties to regional governments, and together with the publicly owned savings banks, make up around 40 per cent of bank assets in Germany (Hüfner, 2010).

2.3 The Social Constructivist Approach

The theories of capitalist institutions and institutional complementarity discussed above relate broadly to the formal type of institution – termed 'functional' or 'liberal' institutionalism by some authors (Hall and Taylor, 1996). However, as mentioned above, non-codified or informal institutions also play a significant role in coordinating behaviour and guiding economic decision-making. Institutions such as social norms and conventions, as well as inter-subjectively held beliefs and ideas are likely to affect the fundamental social and economic structure in salient and tangible ways.

[7] FIGURE 3 also includes a third common classification – 'Mediterranean Market Economies'. For details, see Geffen, & Kenyon (2006).

Firstly, informal norms constitute what a particular group considers to be a 'legitimate' formal regulatory institution. There needs to exist some consistency between the formal regulatory institutional infrastructure and the underlying informal norms that provide the foundational social order. As argued by North (1990), even if countries transplant formal rules, dissatisfaction may be engendered because deeper informal norms tend to be more inert and slow to change. In such cases, borrowed institutions may be neither followed nor enforced. This is especially important when dealing with sanctions. When sanctions are delivered, the authority delivering such a sanction must be considered legitimate by the relevant group, and this legitimacy is inherently inter-subjective and is derived from complex social processes.

Secondly, even if there is a well-defined formal regulatory institutional structure, the incentives it generates, the behaviour it induces, and the interpretation of the meaning of that system will be dependent on the inter-subjectively held belief systems of the relevant groups. These are ultimately social phenomena and cannot be reduced to a material or structural representation of the environment. As highlighted by Wendt (1999) with reference to international relations, before one seeks to understand interests and incentives, one must understand the beliefs that lie behind them. North (1990) also accepts that understanding the incentives produced by formal institutions requires the understanding of how agents represent those incentives within the broader set of informal norms of identity, belief and meaning. These belief systems can be interpreted both as conventions of behaviour on the collective level or scripts that govern action on the individual level (Dobbin, 1994). In both cases, they are coordination mechanisms based on shared norms that are self-sustaining, largely by being reconstituted by agents' repeated practices over time. On both the collective and individual level, the way in which formal institutions interact and produce economic and political outcomes is mediated by social factors. The key is that inter-subjective beliefs create causal relationships beyond the material context of action.

3. Methodological Framework – A Multi-tier Institutional Approach

Following Pennings, Keman & Kleinnijenhuis (1999), comparative research and analysis should aim to be one of two broad types, either exploratory or corroboratory. The 'explorative' type attempts to identify relationships, which may then be conductive to theory formation. The second type is driven by pre-existing theory and aims at testing specific causal hypotheses, which is a necessary step in corroborating the extant theory – termed the 'corroborative' type. Therefore, the choice between the two largely depends on that availability of plausible existing theories to be tested. Chapter 2 described a number of plausible approaches one could take if one were attempting to understand the causes and determinants of financial regimes across nations and over time. Unfortunately, however, no single explanation provided above seems to present itself and unqualifiedly superior, nor do any seem unequivocally without merit. The public interest view has obvious normative appeal, and to the extent that economic policy can be meaningfully evaluated in such a way, it is useful in that it provides a benchmark that we can use to judge observed financial

practices. However, as a tool of positive economic analysis, its limitations are clear. As the global financial crisis plainly (and painfully) demonstrated, financial regulation across the globe is far from being considered as aligned with the public interest, and beyond this, empirical evidence broadly does not tend to support this approach (Potters and Sloof, 1996). Private interest-based explanations go some way in bettering our understanding, and fit much better with the apparent tendency for financial regulatory policy to be favourable for powerful and well-organised groups. However, the extent to which groups and coalitions can organise, and the way in which private interests are represented in public policy will be to a large extent mediated by a nation's institutional infrastructure. The institutional approach, and in particular a focus on institutional complementarities and varieties of capitalism appears to provide a fairly accurate topography and static foundation for observed national capitalist economic systems. However, this literature is yet to thoroughly examine financial regulatory regimes. Furthermore, it tends to treat formal institutions as largely exogenous, and does not address latent demand for institutional change. Finally, the constructivist approach allows the understanding of the extent to which formal institutions and policies are consistent with a society's norms, beliefs, identities and ideas, thus giving indications as to their initial acceptability, durability, sustainability and effectiveness. However, generally applied social explanations can often be vague, and so require concurrent detailed circumstantial, comparative and historical analysis.

Consequently, while there exists a patchwork of literature made up of individual contributions from the approaches described above, it can really only enable an incomplete and piecemeal understanding of the diversity of financial regulatory regimes. It therefore appears to be a worthwhile endeavour to attempt some manner of synthesis of these approaches with respect to financial regulation. Then once some more general theoretical framework which incorporates all three approaches has been established with respect to financial regimes, this itself can be tested as a whole on a corroborative basis. Furthermore, in the case of the regulation of 'shadow-banking' and hedge funds, there are very limited established theories, especially those that adopt a domestic political-economic perspective. Consequently, the methodological approach I adopt falls under the 'explorative' category. So in order to come to an understanding of the most salient determinants of financial regulatory regimes, this chapter develops a framework that relatively parsimoniously combines the most important elements of these approaches. It is designed to produce a framework that is useful in identifying and evaluating key relationships in financial regulation, and then using these relationships to tentatively produce hypotheses regarding financial regulatory regimes. The aim of this paper is not to directly test the methodological framework itself, nor does it make a direct comparison of cases. Evidence is gathered in a somewhat ad hoc fashion from a range of national cases in order to inform and be conducive to the formation of a more general theory, which may then be more directly tested by further comparative research.

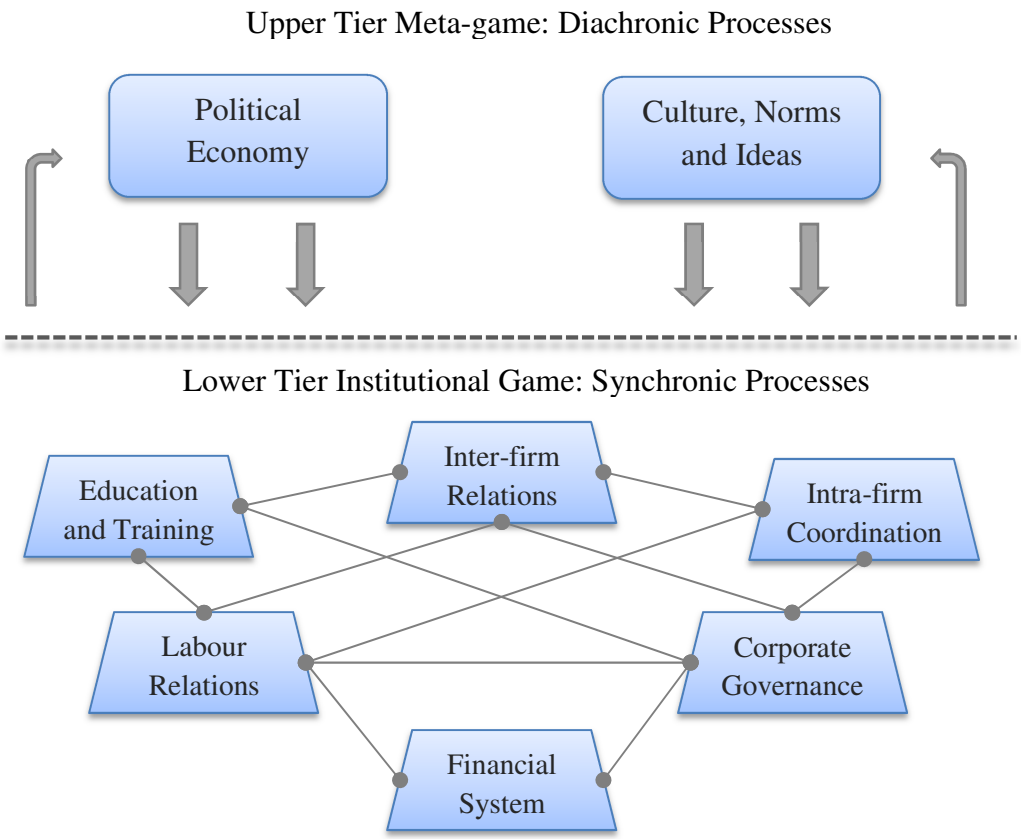
3.1 Two Tiers and Three Pillars

For these reasons, the framework I propose consists of 'two tiers' and 'three pillars'. The 'three pillars' refers to the simultaneous use of private interest theories, institutional theories and social constructivist theories to inform the analysis. The 'two tiers' aspect refers to my intention to attempt to isolate the complementarities in the formal financial institutional structure on one tier, but attempt to endogenise this by using a second tier, which represents the latent demands of private interests, informal institutions and social processes. I follow those like Aoki (2001), and make the multi-level distinction in matters of comparative institutional analysis, between problems of 'synchronicity' and problems of 'diachronicity'. A synchronic understanding of institutions means taking the set of overall institutional possibilities that we observe as given, and providing explanations for why various constellations and configurations occur in particular ways and not others. Institutions in one sphere or another are not independent, autonomous and isolated, but instead exist as some internally coherent and consistent whole. A diachronic understanding focuses on the mechanisms that underlie institutional evolution and change, but is also consistent with an equilibrium view of institutions. It acknowledges path-dependence and the importance of historical information, as existing rules can shape incentives for how to innovate and transact, which potentially generate fundamental shifts in the underlying game structure.

However, this endogeneity comes at a cost, as it is difficult to come up with an analytical procedure that allows all things to be determined within the system, while at the same time is sufficiently determinate to provide concrete pathways and understanding. It would be clearly impossible to contemplate the entire set of theoretically feasible institutional equilibria across all spheres of politics and economics, and then to use deductive reasoning to choose between them. So in the area of comparative institutional analysis, many authors suggest that when looking at a particular situation, it is possible to make a distinction between the institutions that may be considered exogenous in that particular circumstance, and those endogenous outcomes to be understood.[8] That is not to say that some institutions aren't changeable, but rather that for the purpose of examining specific contexts, historical factors as well as some of the more entrenched institutions can be taken as given. Grief (1998) describes such an analytical procedure for exploring institutional "emergence perpetuation and change," (ibid, p.80) using context-specific information. It is an essentially two-step process, whereby historical and comparative, as well as technological and resource information is firstly used to determine the exogenous institutional factors. Then secondly, a context-specific game-theoretic model is constructed based on those exogenous rules, and then solved to identify equilibria. One way to interpret this multi-tiered approach is to imagine that in some circumstances, agents take certain institutions and the equilibrium outcomes of some games, as given. By way of a visual representation, this multi-tiered framework is shown in FIGURE 4.

[8] See Greif (1998), Aoki (2001), Amable (2003).

FIGURE 4: A Multi-tier Institutional Approach



3.2 The Lower-tier Institutional Game: The Problem of Synchronicity

3.2.1 Institutions as Equilibria

The comparative institutional approach introduced above relies heavily on the use of institutions as an analytical device, so requires a meaningful definition of an institution that is suitable for this purpose. According to the prominent work of North,

> *"Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction… in the jargon of the economist, institutions define and limit the set of choices of individuals,"* (North, 1990, p3-4)

The important aspect of these 'rules' is that they are only a subset of the physically feasible actions available in human interaction, and are constraints that go beyond the technological and environmental options. According to Aoki (2001), there are two indispensable aspects of coordinating rules that qualify them as institutions. Firstly, they must be relatively stable in order for agents to rely on them to coordinate their behaviour. Secondly, agents must believe that the sanctions and rewards associated with an institution are credible, and therefore the rules must be self-reinforcing. One way to include both of these pre-requisites is to take an equilibrium view of institutions and conceptualise them as coordination devices that have developed as the outcome of agents interacting in a repeated-game-

theoretic setting. Utilising the formal tools of game theory, Hurwicz (1996) provides a formal specification of the elements of an institution. Firstly, one must specify the set of agents who are able to take substantive action in a particular setting. These could be individual agents, group agents, or organisations. Secondly, the set of technologically feasible actions available to each agent must be specified. This is often termed the 'choice set', and where actions are sequential, the exhaustive set of actions for each potential choice, even if unrealised, is called a 'strategy'. Thirdly, the differentiated states of the world that correspond with each particular configuration of agents' actions needs to be defined. This rule, which assigns a state of the world to each 'strategy profile' is often called an 'outcome' or 'consequence function'. Finally, each agent's preferences over the respective states of the world needs to be defined, such that, via their choices, they seek to achieve more highly preferred states of the world.

Referring back to the two key elements of an institution described above, in order to incorporate stability into the definition of an institution in this game-theoretic setting, the 'strategy profile' must therefore be an equilibrium. Typically this is assumed to be a Nash equilibrium (or more specifically a subgame perfect equilibrium), whereby each agent chooses a strategy that, given the strategies of the other agents, produces their most preferred state of the world (Selten, 1975). When one describes an institution in terms of an equilibrium rule of behaviour, it is important to also consider the application and enforcement of sanctions and rewards, and the degree to which it is self-re-enforcing – the second stipulation above. It may be tempting to assume that some external agent is able to provide enforcement; however, when looking at the most fundamental institutions, such as constitutions, the question of enforcer incentives becomes acute. The question of who provides the incentives for the enforcers to correctly apply sanctions and rewards easily turns into one of infinite regress, when layers of enforcement are applied. However, one way to address this is to include the enforcer as an agent in the game-theoretic abstraction, and to consider the institutions that coordinate the enforcer's behaviour as also being an equilibrium strategy. Basically, the incentives associated with the enforcement of sanctions and rewards inherent in an institution must themselves be the result of equilibrium play.

Therefore, in my analysis of financial regulatory regimes, I will adopt this 'institution-as-an-equilibrium approach, and define an institution as the set of rules, instructions, guidelines or principles that describes the sub-game perfect equilibrium 'strategy profile' of all agents in a particular setting.

3.2.2 Institutions as Psychological Equilibria

One extremely difficult task, however, is to succinctly yet richly embed the influence of beliefs and cognition into a relatively general institutional framework. The method I will follow is based largely on Aoki's (2001) 'equilibrium-as-summary-representation' approach. It adopts the standard 'institution-as-an-equilibrium' approach described in section 2.2.1, but adds a crucial modification to the information capabilities that agents are assumed to possess. Importantly, agents are assumed to be neither in possession of, nor

indeed be capable of, complete knowledge regarding all the game structures (ie. agents, strategy profiles and consequence functions) in which they are involved. Instead, agents form 'subjective game models' representing largely incomplete cognitive approximations of how the game is structured, and as agents repeatedly interact, their subjective game models come to resemble one another's, albeit imperfectly. Nonetheless, the effect of repeated interaction and the updating of beliefs provides boundedly rational agents with a salient means by which to coordinate their behaviour, which, importantly, superimposes onto the physical/environmental game structure. Hence, an institution can be interpreted as that common component of the players' subjective game models that allows them to functionally coordinate; namely, the shared beliefs about the structure of the game. Crucially, the incorporation of beliefs does not mean that we must dispense with the underlying notion of a Nash equilibrium. In fact, we can use the definition of a 'psychological Nash equilibrium' (Geanakoplos, Pearce and Stacchetti, 1989) to illustrate this point. Agents continue to act according to their best response, but now it is relative to their beliefs about other players' beliefs, which are in fact about the original player's beliefs and so on. Despite this iterative nature, Geanakoplos, Pearce and Stacchetti (1989) show that even in psychological games, at least one sub-game perfect equilibrium exists – that there is at least one 'strategy profile' where it is not beneficial to deviate, as long as agents' beliefs are sustained regarding other agents.

Representing institutions in this way allows for a range of path-dependent social process to substantively affect economic outcomes. Many institutions indeed exist merely because agents believe they exist (take any one of the seemingly arbitrary behaviours humans engage in), and even once the initial conditions which gave rise to a particular equilibrium have changed, the summary and representational nature of institutions means that they can still function as effective coordination devices. However, there is also the possibility that when circumstances change, either because agents' summary representations produce sufficiently adverse consequences, or their content is somehow de-legitimised on other, possibly normative grounds, agents are faced with a cognitive institutional crisis and must re-examine their choice rules (strategies) based on new information. Through a process of re-adjustment, a new institutional equilibrium will then emerge, after agents' subjective game models converge once again, and their summary representations become a broadly mutually consistent common representation.

3.2.3 The Nature of Complementarities

Thus far, my methodology with respect to institutions has focused on each institutional setting in isolation. However, as argued in Section 2.2, the type of institution in one particular setting can drastically affect the payoffs and incentives for agents in other institutional settings, and possible complementarities between games or situations have consequences for the overall architecture of an economy. In a loose sense, a constellation of institutions should be coherent/consistent, in that there should not be large contradictions between institutions in different settings. But more than that, the consequence/outcome functions in one setting are likely to depend on the equilibria in

other settings, such that some strategies will have their payoff enhanced, while others will become less preferred. Authors also sometimes discuss complementarity in terms of some aggregate performance measure. This may be useful for empirical work, however, the conceptual difficulties with either identifying a suitable economic variable or aggregating preferences via interpersonal comparison make them less suitable for the purposes of this paper.

One may consider three types of complementarity; namely, differential, semi-quantitative and strong (Amable, 2003). In a situation where institutional choice is made by choosing a value from continuous action-set variable, differential complementarity arises when the marginal utility of one institutional variable is positive with respect to another. However, it is rare that we are presented with institutional choice variables that fall along continuums; therefore, we require some definition that allows discrete numerical values. The semi-quantitative definition is based on the notion of supermodularity. Specifically, in the case where utility is a function of the institutional form taken in one or more settings, and the institutional from can be represented by an ordered discrete variable, supermodularity means that the incremental utility gained from choosing a higher discrete value is greater when the discrete value corresponding to another institutional form is also higher (Topkis, 2001). Unfortunately, we are also not often faced with institutional forms that can be easily represented by an ordered numerical variable, so one needs some way of evaluating complementarity in terms of qualitative variables. In cases like this the notion of strong complementarity can be used. It simply implies that, again in cases where utility is a function of institutional forms, the level of utility declines when the institutional form is changed in one sphere, while leaving the others unchanged.

Strong complementarity can be illustrated by considering two institutional settings, A and B, where the discrete institutional form can be α or α' in A, and can be β or β' in B. The payoffs to each player 'i' engaged in this institutional setting are a function, fi(.), of choice of institution across both spheres. FIGURE 5 illustrates this structure in its institutional matrix formulation (Amable, Ernst & Palombarini, 2005).

FIGURE 5: Institutional-form Matrix

		A	
		α	β'
B	β	$f_i(\alpha,\beta)$	$f_i(\alpha',\beta)$
	β'	$f_i(\alpha,\beta')$	$f_i(\alpha',\beta')$

Furthermore, following the formulation of, the institutional form α in the institutional sphere A is said to strongly compliment the institutional form β in institutional sphere B if and only if,

$$f_i(\alpha,\beta) \geq f_i(\alpha,\beta') \text{ and } f_i(\alpha,\beta) \geq f_i(\alpha',\beta), \text{ for all i's}$$

3.3 The Upper-tier Meta-game: The Problem of Diachronicity

The problem of synchronicity described in the game-theoretic terms above, provides a succinct way to understand firstly, the nature of institutions, and secondly, the way in which institutional forms can impact on behaviour in other spheres. However, when we attempt to fully endogenise the non-physical environment, which as described is essential for a meaningful conception of institutions, we leave ourselves with possibly too indeterminate initial conditions. Furthermore, even if this were possible, there is the possibility that many different sub-game perfect equilibria exist in one environment, and to say that one set of agents' strategies is self-reinforcing once already being played is to say very little, unless one also provides a way to distinguish between the multitude of possible set's institutional equilibria. We require more information as to why a certain institution comes to exist in one place and another comes to exist elsewhere; or more specifically, what are the salient diachronic aspects of initial conditions, beyond endowments, technology and preferences, that one needs to consider when determining why a stable coordinating mechanism exists in the place of other feasible candidates. Following Greif (1994), these self-enforcing non-technological constraints on human interactions will be assumed to be composed of two interrelated elements; namely, cultural beliefs about how individuals perceive their environment, and secondly, how individuals organise themselves into human constructs that alter the structure of institutional games. Thus in looking at the formation of financial regulatory institutions, the diachronic factors I focus on here are twofold. The first refers to the effect of the strategic behaviour of organised private interests as described in Section 2.1, whose collective action capabilities and influence on the game structure are highly context dependent. The second factor refers to the social process that as described in Section 2.3, produce the beliefs, ideas and desires that determine how agents differentially represent the institutional environment.

3.3.1 The Political-Economic Diachronic Process

The process by which humans form organisations can be characterised in an abstract sense as the repeated interaction of individuals causing them to cluster into different groups based on the relative proximity of their economic interests, and a range of social forces (Amable, 2003). The demand by these groups for the protection of specific interests may then see them coalesce into effective 'socio-political groups', who form in order to express a common political goal. As suggested by Knight (1992), at this pre-institutional stage, there is a significant degree of conflict over resource distribution arising out of the heterogeneity of endowments and interests. However, in the same way that they act to mediate the conflict arising out of ex ante heterogeneity, they also leave residual ex post heterogeneity, a result of which produces fresh demand for new institutions. North (1990)

characterises this as latent demand for new rules and for institutional change, and suggests that the "political market" (ibid, p.52) will decide whether this latent demand can be formally expressed. Here, the choice of institutions reflects some political equilibrium as a stable compromise over distributional conflicts. Knight (1992) describes a model that attempts to explain how these group agents act strategically in the 'political market' in order to influence institutional choice, where, as described above, the choice of institution is a choice between multiple equilibria. He shows that ex ante distributional conflict is resolved without coercion, but also that the equilibrium favours the more powerful actor. 'Power' according to Knight, describes an actor's ability to credibly pre-commit to a threat, which is a function of risk attitude and time constraints. According to Knight these can be adequately reflected in relative endowments, such that those with the larger initial resource endowments can expect to achieve a more favourable equilibrium institutional form. Power-based and bargaining approaches like this, however, tend to partially disregard the collective action dilemmas faced by many groups. As described in section 2.1, the insight of Olson (1965) was that relative sizes of endowments or the distribution of income are not necessarily accurate indicators of the political power of different groups. Thus for a complete understanding of the political influence of different groups in altering the financial regulatory institutional game structure, I will depart from those like Knight (1992), and conceptualise the costs and benefits that arise in a bargaining framework to be, to a significant extent, affected by the collective action capabilities of the various groups involved, rather than purely endowments.

3.3.2 The Social Diachronic Process

Section 1.4 described how social process and informal norms can have substantive economic consequences through a range of channels. In examining financial regimes, I will focus on two prominent broad strands. The first is through legitimating constitutive social norms in the Weberian tradition, whereby informal non-economic norms inform legitimation processes that drive institutional and social change (Seabrooke, 2006). The second is in line with the paradigmatic approach of those like Kuhn (1970) and Hall (1993), whereby social forces determine the dominant sets of ideas and underlying intellectual assumptions in a field. In the 'multi-tiered institutional' framework, these are diachronic effects, reflected in the transition dynamics between institutional equilibria.

But what sort of processes characterises this transition phase? Aoki (2001), along with those like Sugden (1986), adopt a largely evolutionary approach, whereby an institution establishes itself without conscious design and where agents develop strategies under the pressure of competitive evolutionary selection. Competitive pressures are likely to play a role, however, this omits a range of other ways in which agents adjust their subjective beliefs in disequilibrium. Therefore, I propose to use the three socialisation processes from Abdelal, Blyth and Parsons (2005) described as a guide to understanding the disequilibrium social dynamics of the institutional game; namely, persuasion, socialisation, and manipulation. Firstly, 'socialisation' processes involving particular symbolic systems and ideational norms can act to guide agents towards common representations. In this

process symbolic systems may compete, and via repetition or imitation, one may prevail as the dominant focal point. This process is most in line with the evolutionary approach of Aoki (2001) and emphasises the emergent nature of new social foundations for institutions that are largely consensual. However, the subjective game models of agents and the way they form common summary representations of the salient features of a particular institutional game are also likely to be affected by social persuasion and manipulation. 'Persuasion' refers to the notion that the entrepreneurial actions of innovative individuals create new interpretations of material circumstances, which may be adopted by others. Whether or not this occurs is often explained by either the appeal of these new concepts with respect to the legitimacy of existing ideas or norms, or some inherent imitable qualities of the persuasive individual, regardless of the content of the new ideas. Finally, 'manipulation' refers to the process whereby certain individuals employ deception or some sort of powerful authority in order to make others accept or rationalise a particular new idea. Crucially, within a population at any given time, the process that led to the establishment of a well-entrenched norm or idea is likely to include a combination of all three mechanisms.

4. Varieties of Corporate Finance – Exit, Voice and Institutional Complementarity

Using the analytical framework outlined in Chapter 3, the remainder of this paper will describe the factors, under the headings of the three 'pillars', that contribute to the existence of different types of financial regulatory regimes. In particular, whether the regulatory regime is likely to support 'bank-based' or 'market-based' finance. In proceeding, the remainder of Chapter 4 discusses the lower-tier exogenous and endogenous synchronic institutional factors, highlighting the effect of institutional complementarities. A model of corporate finance which provides a mechanism for the nexus between the financial regulatory regime and corporate governance, is also outlined.

4.1 Exogenous Synchronic Financial Regulatory Institutions

Section 3.1 described how one way to reduce the number of unknowns when considering a system of formal institutions, is to assume that in some institutional spheres, agents take as given the equilibrium outcomes in more fundamental institutional games. Therefore, when examining the determination of financial regulatory institutions, we must attempt to find those synchronic institutional relationships that agents take as given when forming their strategies, but yet influence financial regimes.

4.1.1 Electoral Institutions and Financial Regulatory Regimes

Ostrom (2009) discusses a possible hierarchy of rules where those at a constitutional level, such as electoral rules, require a significant change in the deep political economy and

system of social norms and beliefs.[9] Over a long horizon, one might expect electoral institutions to change, as they did in Japan and New Zealand during the 1990s, but it does not seem unreasonable to assume that for the most part, these are assumed to be fixed when agents determined their strategies in financial-institutional games. A political-economic model where the political incentives of banks, bank customers, and labour are determined by the way political preferences are amalgamated by a jurisdiction's electoral rules and legislative institutions is presented by Rosenbluth and Schaap (2003). As described in Section 2.2, even with the same underlying distribution of political preferences, centrifugal systems tend to motivate political parties to represent the intense preferences of particular groups, implying that these systems tend to show more favourable policy towards influential groups. In the case of finance, all else being equal, it is likely that financial firms possess a collective action advantage over the average depositor, so acting as traditional Stiglerian regulators, financial regulators may be more likely to create transfers from the consumers to the producers of financial services in centrifugal (proportional) systems. Therefore, in such systems we would expect ceteris paribus to observe relatively high costs of financial services for the average consumer and financial regulation that protects financial firms from competition. In other words, a 'profit-padding' style regulatory regime that supports bank-based finance. In centripetal (majoritarian) systems on the other hand, politicians tend to implement policies that appeal to the mass of voters in the middle of the ideological spectrum (see above) and form policies with the interests of a large and heterogeneous pre-election group of constituents in mind. As such, all else being equal, one might expect higher levels of competition in the financial sector in these jurisdictions, and as a consequence, relatively low retail prices for financial services. Furthermore, system stability is likely to be ensured in these systems via 'prudential' style supervision, thereby supporting the markets-based financial model.

As a rough test of the general proposition that competition is higher in centripetal (majoritarian) systems, Rosenbluth & Schaap (2003) perform a statistical test of the relationship between banks' average net interest margin (which is a proposed proxy for competition) and an electoral rule measure that characterises its centrifugal versus centripetal nature – called the 'effective threshold'.[10] Using data from twenty-two countries between 1980 and 1998, they find that a switch from a pure majoritarian to a pure proportional system is associated with a 0.5 to 2.0 percentage point increase in the interest rate spread.[11]

[9] Ostrom (2009) identifies a hierarchy consisting of constitutional-choice rules, which specify how collective-choice rules are determined, which themselves create operational rules which govern day-to-day decisions and behaviour.

[10] The net interest margin is equal to the difference between the rate banks receive on loans and the rate they pay to depositors, and is considered by the authors as a rough proxy for competition because higher margins suggest that competition has not eroded excess revenues. The effective threshold is based on Lijphart (1995) and is the median between the minimum vote share required for a party to gain representation and the maximum vote share a party can receive without gaining representation.

[11] Some caveats, however, should be mentioned regarding their methodology. The researchers estimate their model as a time-series cross-sectional regression (panel) using random effect rather than fixed effects. This would seem to overstate the strength of their results because using random effects treats each observation as independent and excludes the possibility of unobserved country-specific characteristics.

Sousa (2007) also argues that electoral systems constitute an important determinant of financial regulatory regimes, and empirically tests the relationship using eight-year-average data up to the year 2003, and included between 69 and 83 countries, depending on model specification and data availability. A multinomial logistic regression technique was used, which estimates the probability of a variable taking on a discrete value, in this case either one of the four regime types, relative to some reference category. Interestingly, the results starkly contrasted the expected relationship and the empirical findings of Rosenbluth and Schapp (2003). When comparing 'prudential' versus 'profit-padding' financial regulatory regimes, it was found that centripetal (majoritarian) systems increase the likelihood of 'profit-padding' regulation. This may be explained by the expansion in the sample of countries or may perhaps be due to the different sample period and estimation technique.

Further to this hypothesis, a specific case study of changes in a nation's electoral rules can be found in Japan in the mid-1990s. In 1994 electoral rules changed, moving the system from one which was more centrifugal in that it supported the existence of smaller parties, to one which was more centripetal, encouraging two-party competition (Christensen, 1996). This change is likely to have produced significant changes of incentives for collective action across the economy. Since World War II, Japan's financial system has been dominated by bank-finance, and number of regulatory restrictions imposed on stock markets rendered them unattractive sources of industrial finance relative to bank credit (Vitols, 2001). So in 1996, around the time of the first election following the electoral changes, banking system assets represented around 64 per cent of financial system assets (ibid). By way of comparison, the equivalent figure for the US was 25 per cent. Following the changes, the costs of providing regulatory favours to organised interests is likely to have increased for politicians, while at the same time, reducing the potential benefits to collective action. Thus, one might expect the regulation of finance in Japan to move the costs of promoting system stability away from consumers of financial services, and onto the financial sector – a move from a 'profit-padding' style system towards a 'prudential' style system. However, authors like Hall (2003) and Bebenroth et al (2009) suggest that, although it is true that supervisory authorities have been granted more power since the mid-1990s, many of the changes deal with the resolution process for failed banks, and that the banking system in Japan remains heavily dependent on the provision of public funds.

So while there may be convincing theoretical reasons to suppose that whether an electoral systems is centrifugal or centripetal can determine the type of financial regulatory regime, the evidence appears mixed, suggesting that the effects may be more indirect. It may rather be that the type of electoral system supports a particular constellation of institutional spheres, and the financial system forms but one part of this configuration of complementary coordinating institutions.

4.1.2 Legal Systems and Financial Regulatory Regimes

In addition to electoral rules, a nation's legal system and legal institutional heritage are another set of fundamental constitutional-level rules which agents may potentially take as given when producing strategies in financial-institutional games. Accordingly, the 'legal origins' literature focuses a great deal of attention on the effects inherited legal systems have on financial structures.[12] Seminal research in this field was conducted by López de Silanes, La Porta, Shleifer & Vishny (1998), where the researchers examined the legal rights of corporate shareholders and creditors, as well as their enforcement across countries. They classify the 49 countries in their dataset as being of four broad legal origins; namely, English common law, French civil law, German civil law and Scandinavian civil law. Based on a set of variables measuring the degree of protection for investors, the authors then find that countries whose legal rules originate in the common law tradition are more likely to provide greater regulatory protection for investors when compared to those of a civil law origin, especially the French civil law tradition. This suggests again that Anglo-sphere economies tend to exhibit regulation that supports markets-based finance. However, despite the statistical correlations cited in this and other papers, there has been relatively little success in identifying and demonstrating empirically a clear mechanism through which legal origins play a significant role.

Two main hypotheses exist as to the connection; namely the 'political' channel and the 'adaptability' channel (Beck, Demirgüç-Kunt & Levine, 2002). The political channel posits that legal traditions differ in terms of the priority they attach to private property rights and private contracting, based on the idea that the English common law developed in order to protect private property owners against the crown. This is then said to influence the extent to which the state can control the judiciary. However, as argued by Graff (2008) there does not appear to be a legitimate reason why having judges adhere to strict legal codes inhibits the function of private contracting and property rights per se, should they be the laws that are laid down in a civil law jurisdiction. The 'adaptability' explanation suggests that legal origins differ in the extent to which they allow the law to keep pace with the changing nature of property rights and private contracting, which is integral for allowing rapid changes in financial system structure to take place. This view is supported in the comparative legal literature in general; however, it is open to question why, in the case of finance in particular, the inertia in law is greater. Given the continued elusiveness of a clear economic channel through which legal origins can have a pronounced effect in financial regimes, it may be logical to consider cultural and social heritage, rather than a formal legal heritage. As will be seen in Chapter 6, it may be useful to consider a 'common cause' social explanation for the difference. Countries in the common law tradition may carry with them through time a cultural and social heritage incorporating informal norms and beliefs about the legitimacy of financial practices. Thus while legal origin may be statistically correlated with existing financial regime characteristics, the causal relationship is yet to be proven.

[12] For examples, see Beck, Demirgüç-Kunt & Levine (2002) or La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2008).

4.2 Endogenous Synchronic Financial Regulatory Institutions

The previous section described how there is moderate-to-limited evidence to suggest that the institutions that agents in the financial regulatory sphere are likely to take as given have a direct discernible effect on the type of regime adopted by an economy. As such, the next step is to look at what type of institutions in other settings may endogenously provide complementarities to those in the financial sphere. Within the 'varieties of capitalism' literature it is commonly suggested that, in the same way that a dichotomy can be made between CMEs and LMEs in a range of spheres of economic activity, different modes of regulation in the financial system also form part of this distinction. In LMEs the ability to access new capital for funding projects depends heavily on the regulation of publicly assessable financial information. Regulations support a tendency towards dispersed corporate ownership, there are few restrictions of large managerial incentives linked to market price signals, and there is a fluid market for corporate control that allows hostile takeovers. In CMEs access to new capital depends more heavily on reputation and the exchange of private information, they are often characterised by concentrated and cross-corporate ownership, regulation partially restricts extensive public trading and there is heavier reliance on bank-loan finance. From this characterisation, is seems logical that financial regulation can enter into institutional game structures via the nexus between corporate finance and corporate governance.

4.2.1 Corporate governance and Financial Regulatory Regimes

The conventional approach to understanding modes of corporate governance can be broadly traced back to work in the 1930s by Berle and Means, who highlighted the significance of the separation of ownership and control in corporate behaviour, and the difficulties that arise in terms of managerial incentives (Berle and Means, 1968). The problems are generally described in an asymmetric information framework, in particular moral hazard. Furthermore, many argue that the manner in which owners of firms attempt to overcome these problems and to exert control over management provides a highly distinctive difference in modes of both work organisation and corporate finance. For example, Roe (2003) describes an Anglo-American model where management behaviour is supervised via a board elected by, generally diffuse, external shareholders. The regulatory institutions that have developed to support the capability for owners to exert control in this environment include bans on insider trading and anti-monopoly rules. But perhaps most importantly, regulatory institutions have developed to support an open and fluid market for corporate control, based on financial disclosure and open information. The claims of employees, customers and suppliers are entirely subordinated to shareholder rights. This model contrasts with a coordinated-market model, where management behaviour is supervised through 'insider' relationships between concentrated ownership blockholders, coordination among producers is allowed and a variety of stakeholder claims on the firm beyond those of shareholders is accepted. The emphasis here is more on reputation rather than information, and the regulatory institutions have developed to allow reputations to be fostered and the monitoring costs for large financiers like banks to be reduced or minimised.

An illustration of this difference in financing relationship, using the UK and Germany and an example is provided by Lütz, S., Eberle, D. & Lauter D. (2011). They describe how the relatively recent development of corporate governance codes in these nations represents another layer of institutional complementarity in the 'varieties of capitalism' framework. In the case of the UK 'outsider' system, the financing relationship can be characterised as a power game between investors and managers, where market-based mechanisms of monitoring and disciplining management, such as the hostile takeover market, serve to direct corporate strategy towards maximising shareholder value. Even though investors generally stay at 'arms- length' from the companies they invest in, management are acutely cautious of poor share price performance, as it seriously jeopardises their job security. In the case of the German insider system, companies are embedded in a much broader set of relationships. In particular, the heavier reliance on intermediated finance means that banks play a larger role in influencing corporate strategy. Furthermore, industry and labour associations are enabled by government regulation to have a negotiating position with regard to internal decision-making. Management discipline and monitoring is based on long term relationships formed with stakeholder coalitions, including banks, large shareholders and employee representatives.

Taking a more general approach, Amable (2003) presents a simple model that makes a specific link between corporate finance, corporate governance and skills and training institutions. The choice in this case is between two types for each institutional sphere. In the financial system the choice is between a 'decentralised' system where financial markets play a prominent role, and a 'centralised' system where banks are the main source of external finance. In the skills and training system, the choice is between a focus on general transferable skills that are non-specific to particular firms, and a focus on specialised skills that are firm-specific. Based on the assumption that financial markets-based systems favour short-term investment projects, Amable (2003) suggests that two of the four possible combinations of institutions will emerge. One will favour short-term strategies in both the relationship between the firm and its external financiers, as well as the firm and its employees. This uncertainty over employment tenure then leads employees to invest in transferable skills. The second viable combination is based on long-term strategies for the firm, its financiers and its employees. Here, 'patient capital' provided by banks is said to allow longer employment tenures, which encourages employees to invest in firm-specific skills.

4.2.2 Labour Relations and Financial Regulatory Regimes

Adopting a similar 'time-constraint' explanation, the way in which the character of coordination in the corporate governance sphere can be linked to that in labour relations is outlined by Hall and Gingerich (2004). In their framework, the relative strength of minority owners within firms provided by regulatory protections, and the dispersion of control across firms will create differing levels of control in the hands of firm management. This control manifests itself as both limits on the potential for hostile takeovers, as well as the ability to raise capital based on reputation and networking.

According to this framework, both these effects alter the focus of management on current profitability. In the case where firms rely on equity-based financing and management operates under the threat of removal should the share price fall, there is likely to be a greater focus on maintaining short-term profitability. This institutional setting reinforces, and is reinforced by, those institutions in the labour market that also allow for competitive wage setting and high staff turnover. This arises because the greater flexibility afforded to managers in terms of employee numbers allows them to respond to fluctuations in economic conditions. In the CME case, relationship-based bank finance and a low threat of hostile takeovers means that firms do not face the same incentives to maintain current profitability when output fluctuates, meaning they are able to make credible longer-term commitments to their employees regarding wages and job security. Industrial relations between firms and trade unions, therefore, tend to be less conflict-based.

A formalised version of this model of institutional complementarity between the industrial relations and financial spheres is proposed by Amable, Ernst & Palombarini (2005). The model similarly highlights the link between time-based constraints arising out of the way firms are financed, and the types of strategies employed during wage bargaining between firms and trade unions. In this model, trade unions and firms can either undertake cooperative negotiations, which are assumed to represent a long-term investment in the performance of the firm; or, to pursue conflict-based negotiations, in which the aim is to maximise the current share of income. Each period, it is assumed that there is some probability that outside investors will withdraw financing, leading to the liquidation of the firm. The likelihood that this happens is determined by two elements: current profitability and the extent to which union and management have pursued cooperative strategies. The relative weighting of these two elements depends on what Amable, Ernst & Palombarini (2005) refer to as the external, non-stakeholder, influence on the firm. When financial investors have a high influence over the strategy of the firm because of arm's length financial markets, the survival probability of the firm is increased when short-term profits are high. On the other hand, when financial investors have only a negligible influence because of bank-based finance, survival probability is increased when the degree of cooperation between firm and union is high. So given this framework, when firms and unions maximise, the strategies chosen are found to depend on the outside-influence parameter. When this is above a particular defined threshold, both firms and unions choose short-term strategies. This is consistent with institutions in the labour market being characterised by high labour turnover, and de-centralised wage bargaining, which in turn has consequences for skill acquisition and training. Conversely, when this outside influence parameter is below a defined threshold, both firm and union choose long-term strategies, consistent with longer job tenure, more centralised wage bargaining and a less conflict-based relationship between employers and employees, thus allowing job-specific skill acquisition.

The intuitive appeal of financing constraints affecting the time-based incentives of firm management, and in turn influencing its coordination strategies is clear. However, the approach of Hall and Gingerich (2004) is somewhat vague, and does not pay a great deal

of attention is to the exact mechanism in the financial relationship nexus that gives rise to their effects. Amable, Ernst & Palombarini (2005), on the other hand, appear to rely extremely heavily on the assumption that market-based finance necessarily produces an over-riding and pervasive management focus on maximising short-term profitability. This may be true, but it nevertheless forms both an assumption and outcome of their model, rendering in need of scrutiny. Their model is also highly suppositious, in that many of the assumptions about the nature of the relationships are seemingly unrealistic.

4.3 A 'Hirschmanian' Model of Corporate Finance

The literature outlined in the previous section emphasises the link between the nature of a firm's financing relationship and its style of management. Generally this is said to come about through the effect of the financing constraint on managerial time horizon. This is a plausible explanation, but lacks a precisely articulated mechanism. Furthermore, it says little about financial regulation. Therefore, I propose an alternative perspective on the way in which corporate finance and capital structure is related to the power of financial stakeholders provided by a regulatory regime. It proposes an explicit mechanism by which different financial regulatory regimes generate varying institutional complementarities. It is a mechanism that embodies the nexus between corporate finance and corporate governance, specifically focussing on the difference between 'insider' and 'outsider' systems, and how this relates to bank-versus markets-based financial regulation.

4.3.1 The Institutional Game Structure and Equilibrium

The difference between an 'insider' and an 'outsider' mode of corporate control stems from how 'control rights' are perceived by investors, and how this (perception?) differs depending on the relative diffusion of ownership. In economics, property rights over ownership of an economic asset are said to confer a bundle of rights, including the right to derive utility or income from an asset, the right to control the use of the asset and the right to transfer ownership of the good to others (Demsetz, 1967). In the case of claims to the control and profits of firms, property rights can be characterised in the same broad terms. Investors of all classes (equity holders, bank lenders, bond holders, etc.) have particular types of rights to controlling the use and to the income of a firm. In the case of equity holders, control rights are paramount, but income is less clearly defined. On the other hand, for bondholders, income rights are clearly defined by fixed interest rates, but control over the firm is limited. Broadly speaking the degree of rights on one dimension is traded off against the degree of rights in the other. The key distinction between an 'insider' and an 'outsider' system appears when we examine how investors exercise their control rights. I suggest that the 'exit versus voice' framework of Hirschman (1970) can be used to understand the difference in the character of corporate finance in 'insider' versus 'outsider' systems. Hirschman suggests that when agents are dissatisfied with the operation of an organisation of which they are members, they can express their disapproval either by exiting the organisation, and thus forgoing the benefits it provides, or by remaining with the organisation and attempting to instigate change by voicing their discontent. Both

avenues can be effective forms of motivation enabling organisational leaders to be responsive to decreases in quality or benefit for members, but are likely to provide different kinds of incentives. This distinction between 'exit' and 'voice' has strong parallels to the choice of coordination, be it market versus non-market. The classical conception of a market is based purely on the notion of 'exit'. In a world of perfect competition, decisions about whether or not to purchase a particular good at a particular price is the equivalent of an 'exit' strategy. In the Walrasian-Hayekian tradition, these price signals based on the 'exit' feedback mechanism are all that is required for sellers to make economic decisions. On the other hand, 'voice' is more concerned with a more qualitative feedback mechanism, that relies on cues other than market signals to prompt change.

This type of distinction can also be made in the area of corporate control. In a diffuse shareholder, or 'outsider' system, for any individual, the control rights associated with the ownership of an economic asset are effectively zero, since the probability of any one shareholder being decisive in any board election decision is very small. This is similar to the 'paradox of voting' outlined by Downs (1957) whereby voters in political elections have a very small chance of playing a pivotal role in determining the result, when compared to the marginal expected private benefits of their most preferred outcome. However, unlike the Downsian case where voting may reflect other factors, like the expression of ethical or ideological principles (Brennan and Lomasky, 1997), there does not seem to be a strong case to suggest that investors perceive the same kinds of expressive benefits in the boardroom. Therefore, instead of exercising the control rights associated with an economic asset, if an investor in a diffuse shareholder regime is dissatisfied with the asset over whose use they have control, they will simply choose the exit option, and sell their share on liquid and deep financial markets. Thus when the performance of management in a corporation deteriorates, financial investors look to better investment opportunities elsewhere, firstly because their affective ability to affect change is limited, and secondly due to their ability to switch to a plethora of alternative investments, while incurring minimal transaction costs. This perhaps explains why 'outsider' financial regulatory regimes are characterised by both high levels of information disclosure and managerial incentives tightly linked to the most salient indicator of investor entry and exit – the share price. Given the diffuse nature of ownership, personal reputation and relationships are not viable, so firms must rely on financial disclosure to signal quality.

In contrast, an 'insider' system characterised by concentrated ownership and with finance provided by large financial blockholders like banks, the exercise of the control rights over corporate assets, or "voicing" grievances, is much more effective. Furthermore, with fewer publicly listed companies, and limited corporate debt markets, 'exit' is often a difficult or expensive option for investors in 'insider' systems. Therefore, 'insider' systems are characterised by financial regulatory policies which discourage an active market for corporate control, and do not use financial disclosure and price signals as an indicator of corporate quality.

Conceptualised in the game-theoretic framework described in Chapter 3, this can be represented as a game between investors and owners of firms. Investors face the choice of either exercising their property right to sell (exit) or control (voice). Their choice will be affected by firstly the perceived value in exerting control but also by the transactions costs associated with selling their financial claim. Owners, on the other hand, must choose a method by which to overcome the principle-agent problem and thereby incentivise and monitor the behaviour of managers. They may choose to either link manager remuneration to the performance of the share price, or to directly monitor and provide long-term incentives. Stock-based incentives will be most effective when good performance of the firm is readily and accurately reflected in the share price. Crucially, the game structure and associated payoffs will be to a large extent determined by the financial regulatory regime in place. Specifically, whether it promotes information disclosure and fluid financial markets with low transaction costs, or alternatively privileges blockholding and limits free financial market activities. For illustrative purposes, a formal version of this model is provided in APPENDIX A.

By way of example, FIGURE 6 shows a normal form version of this game assuming two different regulatory regimes. The payoffs are based on the model described in the APPENDIX, and uses parameter values that have been set for illustrative purposes, but are nonetheless plausible.[13] In regulatory regime A, an equilibrium corresponds to the combination of exit for investors and the application of stock-based incentives by owners. In the case of regulatory regime B, there is again one equilibrium, but it corresponds to the combination of voice for investors and direct monitoring for owners.

FIGURE 6: Financial Regulation and Corporate Governance

Regulatory Regime A: Diffusion & Liquid Financial Markets*

		Owners	
	action	Stock-based managerial incentives	Direct managerial incentives
Investors	Exit	4 , 3	4 , 2
	Voice	2 , 2	3 , 3

* p approaches 0; t = 0

Regulatory Regime B: Blockholding and Limited Financial Markets*

		Owners	
	action	Stock-based managerial incentives	Direct managerial incentives
Investors	Exit	2 , 3	3 , 2
	Voice	2.4 , 2	3.6 , 3

* p = 1/5; t=1/2

From this model, two general propositions can be stated.

[13] In 'Regulatory regime A', transaction costs are assumed to be zero because of the high liquidity of financial markets: $t = 0$. Diffuse ownership also causes the probability that an investor will be decisive to approach zero: $p \to 0$. In 'Regulatory regime B', transaction costs are assumed to be high, $t = \frac{1}{2}$, and the probability of decisiveness higher because of blockholding: $p = \frac{1}{5}$ .For both regimes, the other parameter values are constant: $\theta = \frac{1}{4}$, $\delta = 8$

i) The combination of direct monitoring and voice represents an 'insider' governance system, while the combination of share-price-based incentives and exit represents and 'outsider' governance system.
ii) The type of financial regulatory regime (markets-orientated versus bank-orientated) affects game structure in meaningful ways and acts to support and re-enforce the institutional equilibrium selection of either an 'insider' or an 'outsider' system.

4.3.2 Institutional Complementarities

FIGURE 7 shows the corporate governance-corporate finance nexus described above in an institutional matrix representation (Amable, Ernst & Palombarini, 2005), and contains the payoffs associated with institutional choice across it, and another sphere; namely, financial regulation.

FIGURE 7: Institutional-form Matrix

		Financial System	
		Markets-orientated	Bank-orientated
Corporate Governance	Outsider (exit)	4 , 3	2 , 3
	Insider (voice)	3 , 3	3.6 , 3

It is clear in this example, that the systemic combinations of 'insider plus blockholder', and 'outsider plus shareholder' are both complementary according to the definition of 'strong complementarity' defined in section 3.2.[14] In other words, once established, any deviation in institutional form, while holding the other forms constant, reduces the payoff for at least one of the players.

Importantly however, complementarity also enters into this exit-voice framework, because the prevalence of either 'exit' or 'voice' strategies for investors is not neutral with respect to its impact on the firm in terms of the incentives for managers. This understanding of the difference between 'exit' and 'voice' in the realm of corporate finance fits well with the overall understanding of complementarities between corporate governance regimes and

[14] Recall the definition of supermodality whereby α compliments β iff $\forall i$: $f_i(\alpha, \beta) \geq f_i(\alpha, \beta')$ and $f_i(\alpha, \beta) \geq f_i(\alpha', \beta)$. In this example, for all players (investors and owners),
$f_i(outsider, markets\ orientated) \geq f_i(outsider, bank\ orientated)$ and
$f_i(outsider, markets\ orientated) \geq f_i(insider, markets\ orientated)$.
Likewise, $f_i(insider, bank\ orientated) \geq f_i(insider, markets\ orientated)$ and
$f_i(insider, bank\ orientated) \geq f_i(outsider, bank\ orientated)$

other spheres in the economy. Even in a *de jure* sense, basic property rights regarding the benefits, use and disposal of corporate assets are similar across jurisdictions, different regulatory institutions and institutional complementarities will produce varying *de facto* behaviour of investors. Hirschman (1970) describes how, in the case of a firm's customers, those who are the most active and reliable observers of the quality of a product are also those who are able to exercise their exit option most quickly. However, a rapid exodus of this type also deprives the firm of the feedback voice of those most suitable to provide it, since those who are left in control once the deterioration is demonstrated through others exiting, were not astute enough to discover it in the first place. The same might be said for the market for corporate control. The implication is that systems reliant on exit tend to be more susceptible to rapid changes in quality and unexpected drastic changes in modes of organisation. As argued in the comparative capitalism literature described above, this encourages firms, owners of capital and workers to invest in switchable assets. In contrast, systems where the financial regulatory regime supports the exercise of voice strategies by investors, provide a more qualitative feedback mechanism. The effectiveness of this system relies on the ability for a long-term relationship to develop between capital and management, and between the firm and its stakeholders. The credible formation of these long-term commitments allows owners of capital, managers and workers to invest in specific assets.

5. The Political Economic Diachronic Process and Financial Regulatory Institutions

With the exogenous institutions and endogenous equilibrium strategies representing financial regulatory institutions conceptualised as above, the question then arises concerning the type of meta-institutional upper-tier diachronic processes that influence this lower-tier game structure? Why are the games structured in the way they are, and how do agents form their perceptions of these games and the associated payoffs? As described in general terms in Section 3.3, changes can firstly occur when agents attempt to affect change in the formal institutional architecture as an expression of collective action in the 'political market'. Often seen in terms of changes in bargaining power, it also hinges significantly on capabilities in overcoming free-rider situations.

There are particular reasons why private interests may be more likely to intrude into policy-making, which are especially potent when it comes to the financial sector. Firstly, it may provide non-transparent off-budget redistribution since the type of rents procured from regulatory manipulation in the financial sector can be far more opaque for the average citizen, especially when compared to other types of redistribution, via direct taxes and transfers, for example. Secondly, unlike other areas where there is a general consensus as to how regulation should be applied, one of the main reasons for private interests to influence policy-making in the financial sector is that there is still a great deal of ambiguity regarding the best approach (Cunningham & Zaring, 2009). There really exists no single definitive blueprint for designing banking and financial rules, let alone a clear notion of what constitutes an appropriate role for financial markets. For this reason, choosing one

mode of regulation over another may be considered more a question of judgement rather than strict calculations regarding economic efficiency. As such, there are clear, yet indecisive trade-offs involved that favour certain groups of domestic constituents over others. This policy-making becomes highly susceptible to distributive political concerns and thus a political calculus, rather than an economic one.

Therefore, when attempting to understand the determinants and origins of financial regulatory regimes, it is crucial to be able to untangle the complex web of competing interests and objectives of the various groups within a society. This involves elucidating and defining the various preferences, benefits, costs and incentives for the different groups involved – traditional banks, political parties, bureaucrats, non-financial firms, international organisations etc. The remainder of this chapter, therefore, examines specific cases of organised interests that may look to gain substantially from influencing financial regulatory legislation. It represents the diachronic process by which their ability to acquire resources by overcoming free-rider dilemmas, based on their concentration and the intensity of their preferences, may produce new equilibria within the lower-tier institutional game structure.

5.1 The Traditional Banking Sector

Deposit-taking financial intermediaries like traditional banks have historically been treated as unique and critical objects of state regulation, both because the nature of their business involves significantly competing interests, and because the consequences of bankruptcies are different to those in conventional product markets. These problems of financial intermediation that regulation attempts to address can be broken down into two main classes – issues of solvency and issues of liquidity. Issues of solvency arise because at any point in time, the owners of a bank are only liable to depositors for a fraction of what has been deposited. Should asset values decline sufficiently, for reasons like write-downs from bad loans, there then would be insufficient money left to fully repay depositors. Thus, capital provides a buffer for depositors against adverse movements in asset prices and bad loans, but the higher the leverage; the less asset prices need to fall before a firm becomes insolvent. However, the revenue received by financial firms tends to also increase with the degree of leverage, so there is always an incentive for financial firms to expand balance sheets and reduce the relative size of capital. Therefore, the balancing act that financial firms perform is ultimately a trade-off between higher profitability and lower risk of insolvency. Issues of liquidity refers to the fact that, when financial intermediaries perform their function of capital re-allocation, it generally (although not necessarily) involves a significant degree of maturity transformation. This occurs when long-term loans (assets) are provided using short-term deposits (liabilities) and made attractive because, short-term securities attract lower interest owing largely to the flexibility allowed. However, this also means that if a firm has made too many bad loans, or even if depositors merely suspect that this is the case, a sudden rush to withdraw money cannot be met, as money is tied up in long-term assets. Therefore, even if a firm is solvent in a technical sense, given that maturity transformation does not work in reverse, a bank would be unable to meet its

financial obligations. As with issues of solvency, there is a strong incentive for banks to fund themselves as short-term as possible, while holding assets with as long-term maturity as possible, which again leads to a trade-off between high profitability and short-term liquidity/stability.

These incentives for risk-taking by managers of financial institutions form the key schism between different economic interests, which a large part of financial regulation attempts to address. In most jurisdictions there exists some form of regulation that attempts to restrain the risk-taking behaviour of bank managers. However, banks as a group may not necessarily oppose some supervisory oversight and prudential restrictions. There is a tension for the financial industry in terms of the tightness of supervisory rules, as on the one hand, financial firms are likely to have a 'preference for laxity' (Heinemann & Schüler, 2003), because regulation generally entails limiting individual bank's risk exposure and ostensibly restricting profitability. Therefore, we might expect that in systems where financial markets are the dominant source of finance for firms, banks are likely to attempt to collectively organise to push for less stringent restrictions in order to better compete with both capital market and shadow-banking institutions.

However, financial intermediaries may also favour strict supervision and strong requirements so as to create costly 'barriers to entry' (ibid) for new firms (both domestic and foreign). Competition is thereby limited in the sector, and the privileged position of banks in providing corporate finance maintained.[15] There is a further reason why banks may push for increased regulatory measures, which, at least to the appearance of depositors, increase their financial soundness. Banks have an incentive to maintain the perception that they are safe places for savers to deposit funds, which has the direct effect of reducing their funding costs. The safer a bank is perceived, the lower its borrowing costs. When banks appear to operate within a system of supervision and regulation, their funding costs may be lower, even if their fundamental safety is questionable. We need only look to the recent financial crisis to see that risk was extraordinarily mispriced by depositors in some of the world's largest banks and it is likely that the fact that most jurisdictions were operating under the Basel requirement led to this false perception.

But how can we determine whether the financial sector will favour a regulatory system that relies on markets and information disclosure or a more stringent system that creates barriers to entry? Rajan and Zingales (2001) present a model that make a distinction between what they term 'sophisticated' and 'unsophisticated' financial regimes, which roughly corresponds to the distinction made in Chapter 1 between 'prudential' style and 'profit-padding' regulation respectively. So-called sophisticated regimes are characterised by elements such as a transparent accounting and disclosure system; a legal system that cheaply enforces financial contracts; and the promotion of competition in finance. On the

[15] Heinemann & Schüler (2003), set out to empirically test their hypothesis; however their empirical study suffers from some methodological issues, like limitations in data availability and poor operationalisation of variables. For example, the authors use the total budget for prudential supervision as their main measure of the strictness of financial regulation, however this pre-supposes a prudential/supervisory regulatory regimes and ignores a range of other modes of financial regulation.

other hand, a so-called unsophisticated regime is viewed as one where financing is largely relationship-based, and in the absence of disclosure and low-cost contract enforcement, financiers use connections to monitor loans and obtain information about firms. Furthermore, for non-financial incumbents in a relationship-based system, long-term reputations and the ability to provide collateral, and well as the ability to finance projects out of retained earnings are crucial. Therefore, for both financial and non-financial incumbent firms in such a system, there may be significant resistance to market-finance. This arises because incumbent financiers may be wary of arms-length markets, as they could give promote greater competition and reduce the informational rents that are available in the absence of disclosure and contract enforcement. Non-financial incumbents may in some circumstances also be opposed to greater disclosure rules and fluid contracting, because they can reduce the relative importance of an incumbent industrial firm's collateral, retained earnings and reputation, thus allowing newcomers to enter markets and breed competition with new industrial entrants. Notwithstanding the clearly implicit value judgement made by Rajan and Zingales with regard to their classification of financial systems (as described earlier, non-markets-based modes of corporate finance can produce complementarities with other spheres of coordination in the economy), it is nonetheless plausible that both established banks and incumbent non-financial firms may have a significant interest in financial regulation that maintains their 'insider' status in financial relationships. However, this may not always be the case. For Rajan & Zingales (2001) the key determinant of whether non-financial incumbents will support 'insider' finance will be the degree to which the economy is open to capital and trade flows. When non-financial incumbents are able to access relatively cheap finance from overseas financial firms, the benefits of this cheap finance may be greater than those rents arising out of the limited competition in product markets caused by relationship-based finance. This effect will be made even stronger when an economy is open to trade, since foreign competition is likely to compete away those domestic rents, so the benefits to incumbent non-financial firms of attempting to limit new entrants through reducing their access to finance will be significantly reduced.

Deposit insurance is another financial regulatory measure that has been implemented virtually uniformly across advanced economies justified by a consumer protection and system stability rationale. However, it may also be strongly in the interest of banks to lobby for such a scheme, especially when it is publicly funded. Explicit deposit insurance has spread rapidly in recent years. Indeed, the number of countries offering explicit deposit insurance guarantees almost tripled during the last quarter of the 20th century, rising from 12 in 1974 to 71 in 1999 (Demirgüç-Kunt & Kane, 2002). Vitally, the effect of this type of regulation is to significantly lower the rate of interest banks must pay on deposits because they are guaranteed to be honoured, generally through the provision of public funds. But it is also often true, that this may create significant moral hazard. This arises because banks are no longer constrained by the scrutiny of wary depositors and are provided with an incentive to make riskier investments. As they capture all the upside, but have the downside limited by insurance, banks as well as consumers will generally be in favour of these measures, that is, until taxpayer money is actually required to bail out a failed bank.

Furthermore, even in the case where the financial sector itself is required to internally fund the insurance scheme via mandatory insurance premiums, moral hazard can still arise. Individual insurance premiums are generally not tailored to each bank's risk profile, so there is an incentive for any individual bank to lend recklessly when insurance premiums are not linked to risk. Indeed, a study by Demirgüç-Kunt and Detragiache (2002) finds that in a sample of 61 countries, and spanning the years between 1980 and 1997, explicit deposit insurance is associated with a higher likelihood of banking crises. The effect is found to be stronger when bank interest rates are deregulated and the coverage offered to depositors is more extensive.

Virtually all advanced economies have some type of legislated deposit insurance scheme, so it seems clear that this alignment of interests between consumers and the banking industry forms a strong underlying demand for this type of financial regulatory institution. It seems that the consumer protection motif expounded in public discourse, combined with the pressure applied by banking lobby groups, creates an unlikely coalition, and one politicians are unlikely to be able to resist, even when the ultimate consequences for system stability may be detrimental.

5.2 Shadow Banking, Hedge Funds and Non-bank financial intermediaries

Beginning roughly in the 1980s, a new type of financial firm began to emerge, which to a large extent mirrors the intermediation function performed by traditional banks (Froud, Leaver & Williams, 2007). The business model of this new type of financial firm relies on much the same maturity and risk transformation function as traditional banks, except for one important difference. This business model relies on dealing in more complex market-orientated financial instruments than traditional loans and deposits, such that both the assets and liabilities of these firms are almost exclusively traded on financial markets. Often referred to as 'shadow banking', as it tends to fall out of nations' banking regulatory nets, it is perhaps better described as 'market-banking'. The relatively recent ascent (and decline) of this industry in many parts of the world, especially the Anglo-sphere economies, provides and interesting case for examining financial regulation.

Much of the limited literature studying the regulation of hedge funds and non-bank intermediaries focuses on the international political economy of regulation with regard to inter-governmental agencies like the BIS, or the EU.[16] These studies argue that the regulatory regime pressed for by individual states on the international stage is directly linked to the relative size of their hedge fund industries. However, these studies tend to abstract significantly from the domestic political economic factors that act to determine state preferences regarding hedge fund regulation. There is evidence to suggest that this 'industry size' explanation may be too simplistic. For example, Fioretos (2010) describes how, even though the Hedge fund industry in France is nearly twenty times larger than that in Germany, France has tended to be more aggressive in supporting tighter regulation. In

[16] For examples, see Quaglia, 2011; Porter, 2002; Kamal, 2012.

reality, there are many stakeholders in the effects of non-bank financial regulatory policy at the domestic level that go beyond the industry itself, including traditional banks, brokers and dealers, retail investors and private investors.

One of the defining characteristics of this new class of financial institution, aside from the fact that both their assets and liabilities tend to be traded on financial markets, is that both their customers and financiers tend to be other financial corporations. This is very unlike the traditional model of banking, where intermediation involves the channelling of household deposits to non-financial firms for the purpose of investment. In the place of household deposits there are short-term debt securities issued to large investors, like pension funds. In the place of loans to non-financial firms, there are securitised loan products issued by investment banks and retail banks. In addition, around these non-bank intermediaries, a range of financial service firms have come into existence, whose role is to provide information and brokerage services, along with insurance providers, who issue derivative-type securities, and ratings agencies who sell ratings. Importantly as well, due to its iterative and obfuscatory nature, the risk of these firms has the potential to be grossly mispriced, and is sufficiently detached from the voter that many failed to see the consumer protection and systemic safety rationale for its regulation. Furthermore, by its very nature, this intermediation model can provide significant incentives for a large coalition of interests to maintain its presence. For example, prior to the GFC, in economies like the US and UK where this model of 'market-banking' was prevalent, borrowing was cheap due to the apparent benefits of loan-pooling and securitisation. Therefore, non-financial firms and households alike enjoyed the benefits of cheap credit, allowing the continued smoothing of investment for the former, and of consumption for the latter – representing the expansionary phase in the Minsky financial instability hypothesis (see above). Politicians were also more than willing to allow this to continue, with voters in these economies satisfied with their perceived growth in wealth and prosperity through increases in asset prices across most classes, but particularly in the housing market. For example, Montgomerie (2009) suggests that during the years leading up to the GFC, access to asset-backed credit temporarily forestalled the stagnation in growth of living standards for the middle class in the United States. Broadly speaking, in such an environment, there are unlikely to be many groups who have either the incentives or the collective action capabilities to attempt to instigate regulatory reform. The most obvious group who may have had an incentive to curtail this model were ordinary constituents without large asset portfolios, whose relative wealth was declining significantly. However, this group clearly faced the same type of collective action dilemma as dispersed consumer interests in general, and furthermore, tended to be concentrated in younger and lower income demographics.

The GFC, however, caused an acute moment of Downsian "alarmed discovery" (Downs, 1972, pp. 39-40), representing the point when, as a result of some dramatic series of events, the public suddenly becomes cognisant of and alarmed by a particular political issue. Contrary to the prior assurances of many financial market participants, increasing defaults on loans led to sharp declines in the value of securitised debt assets on global

financial markets. As a result, some of the funds holding these assets became insolvent, while others experienced an extremely sharp increase in funding costs, leading to liquidity problems (otherwise known as a credit crunch). Furthermore, the more traditional investors like pension funds and mutual funds, who had been lured into investing in these defunct funds, now faced significant loses, and moved to call on the insurance they had purchased to protect against such an eventuality. Unfortunately, the insurance companies who had provided these assurances could no longer honour them. This chain of insolvencies and illiquidity soon spread to the non-financial sector, where assets values declined significantly across most classes, investment and consumption dried up, and a global recession resulted. The issue became so pronounced to voters and politicians alike that the broad coalition of interests, which had supported weak regulation of these non-bank intermediaries, crumbled.

The analysis of the interests of organised groups in financial regulatory policy during the lead-up to the GFC and the problems they generated, begs the question as to why this new mode of 'market-banking' and indirect regulation came to be so 'much more prevalent in some parts of the world and not others. For example, in much of continental Europe, non-bank intermediaries form just a small part of the financial sector, with four-fifths of Europe's hedge funds located in the UK. Regulation was also much tighter, with direct regulation applied through registration, disclosure and reporting requirements. In Germany, the investment techniques and activities employed by hedge funds were even prohibited until 2004. This goes some way in explaining the stance of continental European governments in international negotiations, but does not explain the origins of this approach, and what political economic factors determined the financial institutional path in which 'market- banking' failed to develop.

One explanation may be that in financial systems where corporate finance more closely resembles the 'insider' model of corporate finance, with firms maintaining close relationships with financiers and monitoring performed via insider networks, traditional banks had an interest in preventing the competition engendered by corporations looking to engage in market-banking. While traditional banks in these economies may also have an interest in moving further towards this potentially highly profitable market-banking model, and therefore might seek looser regulatory designs, there may also be disadvantages to pursuing this objective. Firstly, the domestic banking industry, being relatively inexperienced with this mode of finance may be at a significant disadvantage to foreign competitors. Secondly, large investors like pension funds may have been expected to be less willing to provide funding to these alternative banking regimes, and instead be more risk averse. Finally, pursuing financial regulatory change that allows a greater role for 'market-banking' is likely to significantly undermine the 'insider' model.

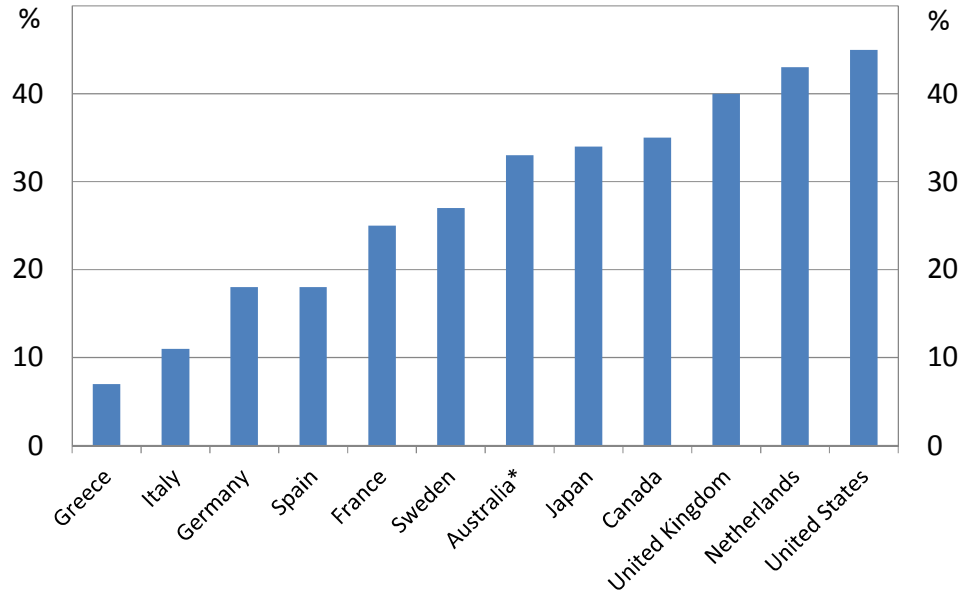
Another explanation may lie in the relative importance of the financial services sector that provides a vast range of support service to the market-based banking model. This broad coalition of financial services firms has a significant interest in both increasing the size and overall turnover in financial markets, as well as expanding the range of financial securities

that are available, to which they can apply their proclaimed expertise. As a result, they support minimal financial regulation. Whereas intermediaries may have an interest in some regulation providing an image of safety that results in low funding costs, financial services firms have no such incentive. One implication of this is that, in economies where securities markets already occupy a central role and have thus created a powerful coalition of related services firms, there is likely to be a great deal more pressure, both on politicians and through public discourse, to limit regulation on hedge funds and 'market-banking'. Accordingly, while securities markets have historically occupied a central role in LMEs like the United States and the United Kingdom, they have constituted only a relatively small part of the financial system in the CMEs like Germany and France (Coleman, 1996).

A final explanation may lie in the relative strength of homeowners and the importance of the mortgage market in different economies. As described earlier, in economies where home-ownership is more widespread and where more households have large debts, there is likely be significant pressure on politicians to implement policies that reduce borrowing rates. FIGURE 8 shows the rates of mortgage debt incidence across a number of countries in 2001. There appears to be some correlation between the countries where market-banking received weaker regulation during the lead-up to the GFC, and the proportion of households with mortgages in 2001. For example, mortgages were more than twice as common amongst households in the United States and the United Kingdom than in Germany.

FIGURE 8: Household Mortgage Debt

Proportion of households with a mortgage, 2001



Source: Crook (2006); *Australia data from Bloxham & Betts (2009)

In many cases of collective action failure on the part of dispersed consumers, the effects of regulation and the efficiency losses imposed on them are not sufficiently visible to provide

an adequate incentive to overcome the free-rider problem. However, the regulation of the type of finance that affects housing may be an exception. Both the price of housing and changes in mortgage repayments are highly visible, so where the affected group is relatively small, moves to regulate loan-pooling and securitisation are likely to be met with less resistance.

5.3 The Centre-left hypothesis

An increased direct stake of ordinary consumers in events on financial markets may not be limited to housing, and in a vast number of advanced economies, household ownership of a range of financial assets is increasing. Partly due to the looming demography-driven crisis in public retirement schemes, many researchers refer to this process broadly as 'the privatisation of risk', whereby services that were previously provided by the state, like retirement savings and social insurances, are increasingly being transferred onto the balance sheets of households (Burtless, 2000). The proportion of the general public who directly own shares has tended to rise in developed countries over recent decades. In the US, for example, the proportion of the population who directly own equity securities increased from around 17 per cent to 30 per cent between 1983 and 2005 (Grout et al, 2009). This often has the effect of significantly altering the underlying incentives for political actors, thereby ending the cohesion of many of the political coalitions and creating latent demand for formal financial regulatory institutional change. Furthermore, Cioffi, J.W. & Höpner M. (2006) argue that partisan politics also plays a significant role in creating new pro-shareholder and pro-financial market regulatory reform, and that paradoxically, centre-left parties in many countries pushed for these corporate governance reforms over the past 15 years. Facing a decline in the traditional working-class demographic and the waning appeal of traditional leftist economic policies, the centre-left developed an electoral strategy in many countries to appeal to this new class of middle-class voters, who had direct interests in the promotion of investor protections in financial markets. In this way, corporate governance reform was used by the centre-left to also undermine the existing relationship between corporate and right-wing elites by generating political alliances with newly developed institutional segments of the financial sector.

5.4 Leviathan: Governments and Supervisory/Regulatory Bureaucracies

In addition to the interests of firms and consumers, some authors like Kroszner (2000) describe how, beyond the channelling of the public's demands, the private interests of public officials, regulatory bodies and supervisory bureaucracies can also have significant influence over financial regulatory policy. For example, when there are close ties between government and banks, or when banks are publicly owned, some budget-constrained governments may attempt to obtain relatively cheap deficit financing. On the other hand, where governments have little influence over banks, there may be an impetus to develop liquid securities markets into which governments can more easily and cheaply issue sovereign debt.

Bank supervisors themselves, or the agencies appointed with the task of regulating the financial sector, may also have an incentive to expand their influence and power, in which case the industry may become over-regulated. Since regulatory authority is often delegated in some way, it may also be in the interests of supervisors and bureaucrats to make regulatory rules as complex as possible in order to increase the value of their specialised knowledge.

6. Socially Constructed Diachronic Processes and Financial Regulation

> *"You shall not charge interest on loans to your brother, interest on money, interest on food, interest on anything that is lent for interest."* Deuteronomy 23:19-20

The world of finance and financial regulation might seem like a relatively barren place to find influential social processes at work, but on the contrary, cultural attitudes and social meanings are pervasively ascribed to finance. From religious norms to the 14th century Italian Medici banking dynasty, to Shakespeare's Shylock, to Gordon Gekko, social attitudes regarding finance have always been complex and discrepant, and are rarely established in the value-free realm of neo-classical financial economics. For example, take the notion of fiat money itself. Fiat money (money issued by governments, but without value in and of itself) functions effectively as a means of exchange and a store of wealth only when those who use it believe that it has value. It is a social construction that fiat money can be exchanged for something of tangible value in the future, and this is entirely reliant on the mutually re-enforcing inter-subjective beliefs of individuals. This is not to mention the complex meanings and interpretations that are applied to acquiring, saving, lending and spending money.

6.1 Legitimacy and Financial Regulatory Regimes

Informal norms regarding the legitimacy of the behaviour of financial actors is similarly prominent. Across the globe we observe that, even when faced with similar circumstances regarding corporate decision-making, the types of activities considered appropriate or justifiable in terms of financial relationships and financial behaviour will depend on the values of the society in which the firm is embedded. For example, Licht (2004) examines the culture-specific values of the owners and managers of firms regarding "what is considered right, legitimate or desirable in society", and compares this to how they make corporate financial decisions. In particular, Licht (2004) suggests that different cultures value particular traits or characteristics differently, and therefore allocate meaning and interpretation in differing ways to areas like individualism, agency and responsibility. For instance, empirical studies suggest that American business people were more likely to focus in individual responsibility, autonomy and the power of hierarchy, when compared to East Asian business people, who tended to be more open to group agency and recognised situational and interactional factors and constraints on individual behaviour. This type of subjective belief system can be related to the model of corporate control described in

Chapter 4. Here, the differential weight placed on individualism, autonomy and hierarchy by agents is likely to significantly affect how investors view hostile takeovers and 'exit' strategies, and will therefore produce equilibrium strategies and regulatory institutions that reflect the degree to which they are relied on as a coordination mechanism in finance. In the Anglo-American culture of corporate governance, hostile takeovers in the market for corporate control are widely tolerated, suggesting that the legitimacy of these practices is not questioned. This type of relationship between cultural values and financial practices is tested empirically by Licht, Goldschmidt, and Schwartz (2004). They examine the correlations between national scores on cultural value dimensions and measures of the rights of shareholders and creditors. They find that a national culture that promotes combative individualistic methods in reconciling conflicting interests and that promotes tolerance for the uncertainty this creates, is consistent with using private contracting and litigation to deal with economic conflicts.

Seabrooke (2006) takes the argument for the importance socially constructed norms regarding legitimacy further, arguing that the way in which governments intervene in order to regulate financial markets must be substantially consistent with "conventions on how the economy should work," (ibid p.198). For Seabrooke, financial institutional structures are determined in particular, by the changing of conventions amongst non-elite, low-income groups, which propagate and ultimately become rigorous economic and social norms. Accordingly, interventions by governments to regulate credit issuance, property ownership and taxation, as well as to deepen the domestic pool of capital in order to bolster its influence in the international financial order, will only be successful to the extent that they are consistent with widespread norms. It is these social norms and ideas that provide the informal institutional support for the formal financial regulatory architecture.

To illustrate this point, using a multi-tier institutional framework, one can abstractly imagine the behaviour of corporate managers, financial firms and financial market participants as conforming to some set of strategies or rules, that in equilibrium, allow them to coordinate successfully between each other, and with other spheres of economic coordination. Underlying these strategies are subjective models that only provide summary representations of the strategic environment. As described in 3.2, they therefore need not be based on perfect information and consist of a perception of notional payoffs that are a function of both material outcomes and an interpretation of those outcomes. Subsequently, due to some change in the socially constructed subjective component of their game models, possibly localised at first, their equilibrium strategies may start to converge to a new 'psychological' equilibrium. The perceived legitimacy of this new type of behaviour now becomes crucial. The informal norms of society at large may disapprove of such behaviour, potentially leading to social sanctions being incorporated into the subjective game models, and thereby reducing the likelihood of this equilibrium being reached. Or, if social sanctioning is insufficient, there may be a drive for formal sanctions to be imposed in the form of financial regulations. Importantly, the ability of agents who question the legitimacy of the new behaviour to have the informal norm formalised will depend heavily

on their relative collective action and dialogical capabilities, as well as formal political institutions.

Also crucial, these sanctioning or enabling social processes need not exist on the domestic economic level. For example, Abdelal (2007) sees the legitimating power of international organisations on the informal norms and ideologies of domestic political elites as crucial to understanding aspects of financial regulation. International organisations, such as the OECD, IMF, BIS and European Union can have an influence in a 'legal' sense, but also in a socially constitutive sense. The can heavily influence the social context of financial regimes by disseminating meanings to regulatory tools, defining for their members what constitutes legitimate financial policies, and by disseminating purported orthodoxy of thought. It is also important to acknowledge how the norms espoused by international organisations contribute to the social and organisational construction of signals that are interpreted by financial actors themselves. For example, the BIS and their Basel Committee on Banking Supervision standards of banking regulation, which formulates broad supervisory standards, guidelines and recommendations, provides socially constructed meaning to technocratic measures like 'risk-weighted capital adequacy ratios' (Porter, 2002). The BIS regulatory standards are an archetypal example of a focal point for the institutional 'rules of the banking game'. Importantly, however, they should not be considered to be in any way objective or divorced from meaning and interpretation. For both financial market participants and national supervisory institutions, these rules may have an extraordinarily powerful legitimating social effect, albeit unique to the respective type of agent. For national domestic supervisory and regulatory authorities, these Basel rules provide a convenient reference point and are used extremely effectively in both political dialogue and public representations to justify their application. For financial market agents too, legitimacy enters in a different and interesting way. The appeals to the objective legitimacy of these rules have the potential effect of stripping out the normative components of financial agents' subjective game models. In other words, financial actors are likely to interpret these Basel guidelines as the only relevant rules of the institutional game, and that as long as they are being adhered to, financial agents need not consider the normative implications of their possibly anti-social behaviour. Thus, financial actors might perceive a green light for any activity that does not strictly contradict these rules. It is therefore not surprising that in the post-GFC world, the recent Basel III rules attempt to include principles of corporate governance (Basel Committee on Banking Supervision, 2010), effectively trying to insert new normative content into financial actors' game models. Whether or not these voluntary codes are adopted is likely to be determined by the extent to which they form an institutional equilibrium for financial market agents, who tend to have a significant incentive to free ride. It will provide an interesting test case of the effectiveness of informal sanctioning amongst industry participants in a prisoners dilemma type game.

6.2 Paradigms, Ideas, and Financial Regulatory Regimes

If we accept the argument that socially constructed legitimating norms provided by international organisations influence financial regulatory institutions at the domestic level, the question then becomes, what are the processes underlying the formulation of this international regulatory policy paradigm? One argument suggests that the interaction of macroeconomic policy elites and the strategic use of ideas at the international level produce a perceived financial regulatory orthodoxy. Hall (1993) describes how the terms used in political discourse may lead to the privileging of some policies over others, and that a persistent feature of political decision-making is conflict within prevailing terms of discourse, as well as competing attempts to alter these terms of discourse. Power is not exerted by organised interests, political parties and policy elites in a purely 'weight of numbers' sense, but is used and acquired by influencing political discourse and setting agendas, which are distinctly socially-constructed phenomena. Policy paradigms represent a particular set of ideas about what can and should be done in a sphere of policy, as well as acting to set the agenda for discourse. An example of this is the case of Hedge fund regulation in the EU following the GFC. Prior to the GFC, even though the activities of hedge funds in Europe fell under EU legislation, hedge funds and hedge fund managers were not regulated at the EU level. There were intermittent calls from various national government for regulation, but according to the European Commission,

> *"The prevailing view amongst industry experts is that the valuation of hedge fund assets is not an issue that can be addressed by legislation or the imposition of a requirement for an independent third party."* (European Commission, 2006, p.32)

The Commission even further suggested that,

> *"The development of sophisticated financial products has created a virtuous circle"* (European Commission), 2006, p.32)

This view was predominantly a reflection of the largely British supported laissez faire approach to financial regulation, which was influential amongst EU policy elites at that time (Quaglia, 2011). However, as a result of the GFC, this model of financial regulation came to be perceived by these elites as discredited, and by 2010, an EU directive regarding the regulation of Alternative Investment Fund Managers had been approved by the EU Parliament. It is also worth noting the change in view of the EC, outlined in the Commission's proposal, suggesting that hedge fund strategies,

> *"are vulnerable to some or several important risks in relation to investors, other market participants and markets."* (European Commission, 2009)

Whether or not this policy change will result in the desired outcomes is outside the scope of this paper, but it is clear that so swift a turnaround in the terms of discourse and ideas of orthodoxy amongst EU elites, goes beyond changes the material circumstances and structural causes.

Changes in paradigm, however, are not limited to financial regulatory discourse amongst elites at the international level. Socially constructed ideas and ideologies amongst networks

of corporate finance managers and financiers regarding theories of the firm and modes of work/corporate/industrial strategy and organisation are directly linked to discourse regarding financial regulation. For example, following the publication of Jensen and Meckling's (1976) *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure,* the overwhelmingly dominant paradigm for understanding corporate governance, amongst both academic economists and management specialists, especially in the US, was in the context of agency theory (Zorn, Dobbin, Dierkes and Kwok, 2004). When managerial and professional networks and business groups possess their own ideas regarding the appropriate relationship between a firm's owners, financiers and management, these theories can often be self-fulfilling. These models of management are by no means inevitable or determined, and can often be influenced by new participants into the discourse. For example, Zorn et al (2004) argue that from around the mid-1980s, a new model of corporate governance became more prevalent - that governance was socially constructed and diffused throughout networks of managers, and that dialogue surrounding this new paradigm was heavily influenced by financial market participants who were external to the firm. Firms that were involved in hostile takeovers came to be viewed as legitimate enforcers of efficiency and as agents of discipline for poor management. Institutional investors, such as pension funds, also embraced agency theory and according to Jung and Dobbin (2012), popularised their ideas through a regime of intense dialogue, persuading initially resistant corporate leaders to the new paradigm with its sole focus on maximising shareholder wealth. This paradigm thus became entrenched in the financial regulatory discourse, with its focus on shareholder primacy.

7. Conclusion

This paper set out to better understand and to establish explanations for the diversity of financial regulatory regimes observed across capitalist economies – roughly between those that support bank-based finance and those that support markets-based finance. Applying a multi-level institutional approach, which is able to relatively coherently combine elements of comparative political economy, comparative institutional economics and social constructivism, a number of interesting factors present themselves as determining why particular financial regulatory regimes occur in some places and not in others.

At the formal institutional level, fundamental constitution-status institutions, like a nation's electoral rules or legal system, have been argued to significantly affect regulatory policies. It may be true in theory that the existence of either a centrifugal or a centripetal electoral system can generate incentives for politicians to appeal to a different set of political interests, and in the case of financial regulation, favour financial interests in proportional systems, and consumer interests in majoritarian systems. However, this relationship is only tentatively supported by cross-country statistical evidence. Furthermore, there is little evidence to suggest that changes in electoral rules in Japan during the 1990s have yet had a discernible effect in financial regulation in that nation. Many researchers have also been drawn to the observation that Anglo-sphere economies that share a common heritage in English common law, seem to exhibit similar patterns of financial regulation. In particular,

that they tend to provide more substantial support for the dispersion of share ownership. However, attributing this to the effect of legal institutions may be flawed for two reasons. Firstly, the underlying mechanisms suggested appear somewhat questionable, as both the 'political' and 'adaptability' hypotheses rely heavily on the assumption that civil law jurisdictions are worse at enforcing and maintaining property rights. Secondly, there may be reason to believe that an unobserved common cause may be producing the statistical correlation.

In reality it seems naïve to suggest that a single institutional explanation could adequately describe patterns of financial regulatory regimes across nations. Therefore, modern capitalist financial regimes should be understood as forming but one part of a more or less coherent synchronic constellation of complementary economic institutions. Within the 'varieties of capitalism' literature, it is generally argued that coordinated market economies are associated with more centralised bank-based financial systems, and liberal market economies with markets-based financial systems. The nexus, through which the different types of financial system provide complementarities with other institutional spheres, is generally suggested to be through corporate governance. This is said to generate 'insider' or 'outsider' systems, which provide differing types of incentives to managers of firms. This is likely to be true; however, assumptions regarding the exact mechanism that constitutes the nexus between corporate finance and corporate governance are often not fully articulated. Furthermore, the relationship between financial regulatory institutions and the corporate finance-corporate governance nexus is not thoroughly examined.

The model described in Section 3.2, attempts to more explicitly describe the mechanism underlying this corporate finance-corporate governance nexus, while allowing for varying complementary effects of different financial regulatory regimes. It is based on the power of financial stakeholders, in particular the control rights provided by a regulatory regime. These are differentiated in the context of Albert O. Hirschman's distinction between 'exit' and 'voice' strategies. One of the conclusions of this model is that the relative liquidity and associated transaction costs of the market for corporate control provided by a financial regulatory regime will determine whether the owners of firms and investors will coordinate using either a i) market-based managerial incentives and exit-based quality signals, or ii) reputational managerial incentives and voice-based quality signals. The former corresponds with 'outsider' corporate governance, the latter with an 'insider' system. The second conclusion of the model is that complementarities exist between 'outsider' systems and financial regulation that promotes a liquid market for corporate control and ownership diffusion, or between 'insider' systems and financial regulation that restricts certain financial market activities – a conclusion that mirrors the standard argument in the comparative institutional literature. Further research in this area might focus on individual national cases, for example focusing on regulation-related (implicit or explicit) transaction costs in the market for corporate control, and how these affect corporate governance.

Complementarities at the formal institutional level afford explanations for why financial regulatory regimes exist in parallel with other economic institutions, but only provide

limited information regarding the diachronic processes underlying the establishment of these equilibria. Heterogeneity of interests may cause agents to attempt to affect change in the formal institutional architecture as an expression of collective action, thus financial regulatory regimes are often a function of the preferences and the power of organised interests as reflected in their collective action capabilities. In the case of traditional banks, the standard argument is that their preferences over financial regulation can be assumed to be for weaker restrictions on risk-taking behaviour. However, there are two reasons why this may not necessarily be true. Firstly, some financial regulatory measures can act to discourage new financial entrants and supress competition in the financial sector, thereby increasing incumbent rents. Secondly, non-binding or ineffective financial regulation can act to create a false perception of safety amongst bank depositors, thereby reducing bank funding costs. Deposit insurance schemes have a similar effect, and despite the moral hazard implications, the apparent coalition of interests between the average retail depositor and the banking industry is powerful worldwide. In addition to traditional banks, recent decades have seen the emergence of "market-banking" – a non-traditional intermediation model involving tradeable financial securities rather than loans and deposits – which has prompted an acute re-examination of regulation, especially of hedge funds and the "shadow banking" industry. Furthermore, there appear to be three main factors that may explain why regulation of hedge funds and 'shadow banking' was weak in some jurisdictions, yet stronger in others. The pre-existence of 'outsider' finance, a relatively high influence of the ancillary financial services sector, and a relatively high rate mortgages amongst households all appear to have contributed to a minimalist approach to financial regulation in this case. In addition to rates of household mortgage borrowing, the general trend towards the 'privatisation of risk', whereby formerly publicly funded services like pension schemes have been transferred onto the balance sheets of households, appears to have significantly altered the underlying political-economic equilibrium in many economies. So much so that, it was centre-left political parties in many nations who spearheaded pro-shareholder and pro-financial market regulatory reform – seizing the opportunity to make new political alliances with organised financial interests, as well as appealing to middle-class voters.

Private interests clearly have a stake in affecting change in the formal institutional regulatory architecture of the financial sphere. However, these effects also appear to be to a large extent mediated and refracted by informal norms and social constructs, which impose on the material context of action. Firstly, informal norms that establish the legitimacy of certain behaviours in financial markets, or the legitimacy of financial relationships, appear to be influential in determining regulatory regimes. In other words, these constitutive legitimating norms provide support for the formal financial regulatory structure. Importantly, prominent international organisations, such as the IMF, BIS and OECD are a powerful force in disseminating meaning for regulatory tools, and defining for their members what constitute legitimate policies. Secondly, socially constructed policy paradigms, which represent inter-subjectively held beliefs and shared sets of ideas, can also structure discourse in a particular way and define a policy agenda. Indeed, an examination of the discourse of the European Commission regarding the regulation of hedge funds

highlights the delegitimising force of the GFC on the formerly influential laissez faire policy paradigm. There is also reason to argue that, in addition to those amongst policy elites, paradigms of behaviour and social organisation amongst both financial market participants and managerial elites can act to influence the values and goals of corporate strategy.

Overall, this paper reveals that an explanation for the determinants of a financial regulatory regime is unlikely to be reduced to one, or even a small number of factors. Instead, financial regulatory regimes must be understood in wider institutional, historical institutional, political economic, social and international contexts. They must be understood as representing the complex interactive process of feedback between these elements. This paper nonetheless reveals the salient factors and channels that must be considered when examining the context specific information of a particular national economy, if one is hoping to gain a more complete perspective on the diversity of financial regulatory regimes.

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Appendix A: A Model of Exit and Voice in the Corporate Governance-Finance Nexus

1. Investors:

Consider the choice between exit and voice for a von Neumann-Morgenstern expected utility maximising investor. In this framework, an investor is faced with the prospect of the expected cash flows 'C' of a corporate asset generated in perpetuity falling by a scaled amount,

$$\alpha C$$

giving them an expected cash flow of

$$(1-\alpha)C$$

Here α can broadly represent the degree of managerial agency costs (principle-agent problem).

Faced with this deterioration in performance, they face the possibility of either exercising their property right of disposal (exit), or their property right of control (voice). In the case of voice, they face a Downsian style paradox, where the expected benefit of pursuing change depends on the likelihood that they will be a decisive voice. If this likelihood is the probability, p, then their expected payoff from this strategy is

$$pC + (1-p)((1-\alpha)C)$$

In the case of the exit strategy, the investor receives sells their claim on the firm, but incurs some transaction cost 't' which depends on the liquidity of financial markets. They therefore receive a payoff of

$$(1-t)C$$

This provides us with the conditions under which investors will choose either strategy as a function of the expected decline, and the transaction cost. Specifically, agents will choose voice if

$$p > \frac{\alpha - t}{\alpha}$$

A higher transaction cost 't' decreases the probability of decisiveness 'p' that is required for an investor to choose voice. When an investor faces a low p, either t must be relatively low, or α must be relatively high.

2. Owners:

Owners also want to maximise their payoff

$$(1-\alpha)C$$

and can do so by attempting to minimise the managerial agency costs, α. Assuming this can be done equally well by either attaching managerial incentives to the stock price, or

directly monitoring through long-term relationships, owners choose from a discrete variable 'M'. Share-based incentives take the value 1, while direct incentives take the value -1. The value of alpha is determined by the interaction of the managerial decision, and the Hirshmanian information provision by investors, which also take the form of a discrete variable 'I', where information based on exit takes the value 1, and information based on voice takes the value -1. The degree of managerial agency can be calculated as

$$\alpha = \left(\frac{1 - M \cdot I}{\delta}\right) + \theta$$

where θ represents the effect of imperfect incentive alignment and is assumed to be less than 1.

δ represents the sensitivity of the firm's performance to poor management incentives. In other words, when managerial incentives are linked to share price and investors provide accurate information via exit, or when owners rely on information from the voice of long-term investors to provide incentives, $\alpha = \theta$.

Otherwise, agency costs are exacerbated by an amount greater than θ, depending on δ.

3. Equilibrium:

The payoff matrix corresponding to this game is shown in Figure A1

	strategy	**Owners** Share-price incentives	Direct incentives
Investors	Exit	Investors: $(1-t)C$ Owners: $\left(1-\left(\frac{1-M\cdot I}{\delta}+\theta\right)\right)C$	$(1-t)C$ $\left(1-\left(\frac{1-M\cdot I}{\delta}+\theta\right)\right)C$
	Voice	$pC+(1-p)\left(1-\left(\frac{1-M\cdot I}{\delta}+\theta\right)\right)C$ $\left(1-\left(\frac{1-M\cdot I}{\delta}+\theta\right)\right)C$	$pC+(1-p)\left(1-\left(\frac{1-M\cdot I}{\delta}+\theta\right)\right)C$ $\left(1-\left(\frac{1-M\cdot I}{\delta}+\theta\right)\right)C$